FILE NOTATIONS

Entered in NID File .....
Location Map Pinned .....
Card Indexed .....

Checked by Chief .....
Approval Letter .....
Disapproval Letter .....

COMPLETION DATA:

Date Well Completed .....
W..... WW..... TA.....
GW..... OS..... PA.....

Location Inspected .....
Bond released
State or Fee Land .....

LOGS FILED

Driller's Log.....
Electric Logs (No.) .....
E..... I..... Dual I Lat..... GR-N..... Micro.....
BHC Sonic GR..... Lat..... MI-L..... Sonic.....
CBLog..... CCLog..... Others.....

BURTON/HAWKS,INC.

First National Bank Building
P. O. Box 359
Casper, Wyoming 82602
307/234/1593

May 25, 1979

Mr. Ed Guynn, District Engineer
U.S. Geological Survey
8440 Federal Building
125 South State Street
Salt Lake City, Utah, 84111

Alkali Canyon Fed. 31-1

Re: Burton/Hawks, Inc.
4-Well Program
South Uinta Prospect
Duchesne County, Utah

Dear Ed:

Enclosed please find the following data in reference to the above prospect:

1. Applications for Permit to Drill, Form 9-331C (4 wells)
2. Location plats (4 wells)
3. 10-Point Programs (4 wells)
4. MSUOP and associated exhibits (4 wells)

A Federal blanket bond is currently being obtained and the archaeological clearance is being mailed directly to you.

Since we are on an extremely short fuse on these wells, I would appreciate any help you can give us in regard to an early on-site inspection.

Thank you for your continued cooperation.

Yours very truly,

BURTON/HAWKS, INC.

Glenn R. Bochmann
Field Representative

GRB/jo

Enclosures

cc: Joe Fransen, District Ranger
Ashley National Forest
Duchesne, Utah

Form 9-331C
(May 1963)

SUBMIT IN TRIPLICATE*
(Other instructions on reverse side)

Form approved.
Budget Bureau No. 42-R1425.

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. TYPE OF WORK
DRILL [X] DEEPEN [ ] PLUG BACK [ ]

b. TYPE OF WELL
OIL WELL [ ] GAS WELL [X] OTHER SINGLE ZONE [ ] MULTIPLE ZONE [ ]

2. NAME OF OPERATOR
Burton/Hawks, Inc.

3. ADDRESS OF OPERATOR
P. O. Box 359, Casper, Wyoming 82602

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.*)
At surface
SW¼ NE¼ (2358' FEL/2062' FNL)
At proposed prod. zone
30494

5. LEASE DESIGNATION AND SERIAL NO.
U-8943-A

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME
Antelope Canyon Unit

8. FARM OR LEASE NAME

9. WELL NO.
No. 31-1 Alkali Canyon-Fed.

10. FIELD AND POOL, OR WILDCAT
Wildcat

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA
Sec. 31, T6S-R~~7W~~ 7E U.M.

12. COUNTY OR PARISH
Duchesne

13. STATE
Utah

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*
35 miles south of Duchesne, Utah

15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any)	16. NO. OF ACRES IN LEASE	17. NO. OF ACRES ASSIGNED TO THIS WELL
2062'	1760.00	160.00
18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.	**19. PROPOSED DEPTH**	**20. ROTARY OR CABLE TOOLS**
N/A	4950'	Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.)
7540' GR

22. APPROX. DATE WORK WILL START*
June 1, 1979

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT		SETTING DEPTH	QUANTITY OF CEMENT
12-1/4"	9-5/8"	36#	K-55	300'	To Surface
8-3/4"	7"	20#	K-55	4950'	200 sx ± (If producer)

Proposed Program

See attached Well Synopsis.

Lease Description

T6S-R7W UM
Sec. 8 N/2, SW¼
Sec. 17 W/2
Sec. 20 W/2
Sec. 32 All 1760 Acres

BOP Program

See Attached 10-Point Program

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen or plug back, give data on present productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any.

24.
SIGNED [signature] TITLE Field Representative DATE MAY 24, 1979

(This space for Federal or State office use)

PERMIT NO. _____ APPROVAL DATE _____

APPROVED BY [signature] TITLE ACTING DISTRICT ENGINEER DATE JUN 22 1979

CONDITIONS OF APPROVAL, IF ANY:

CONDITIONS OF APPROVAL ATTACHED
TO OPERATOR'S COPY

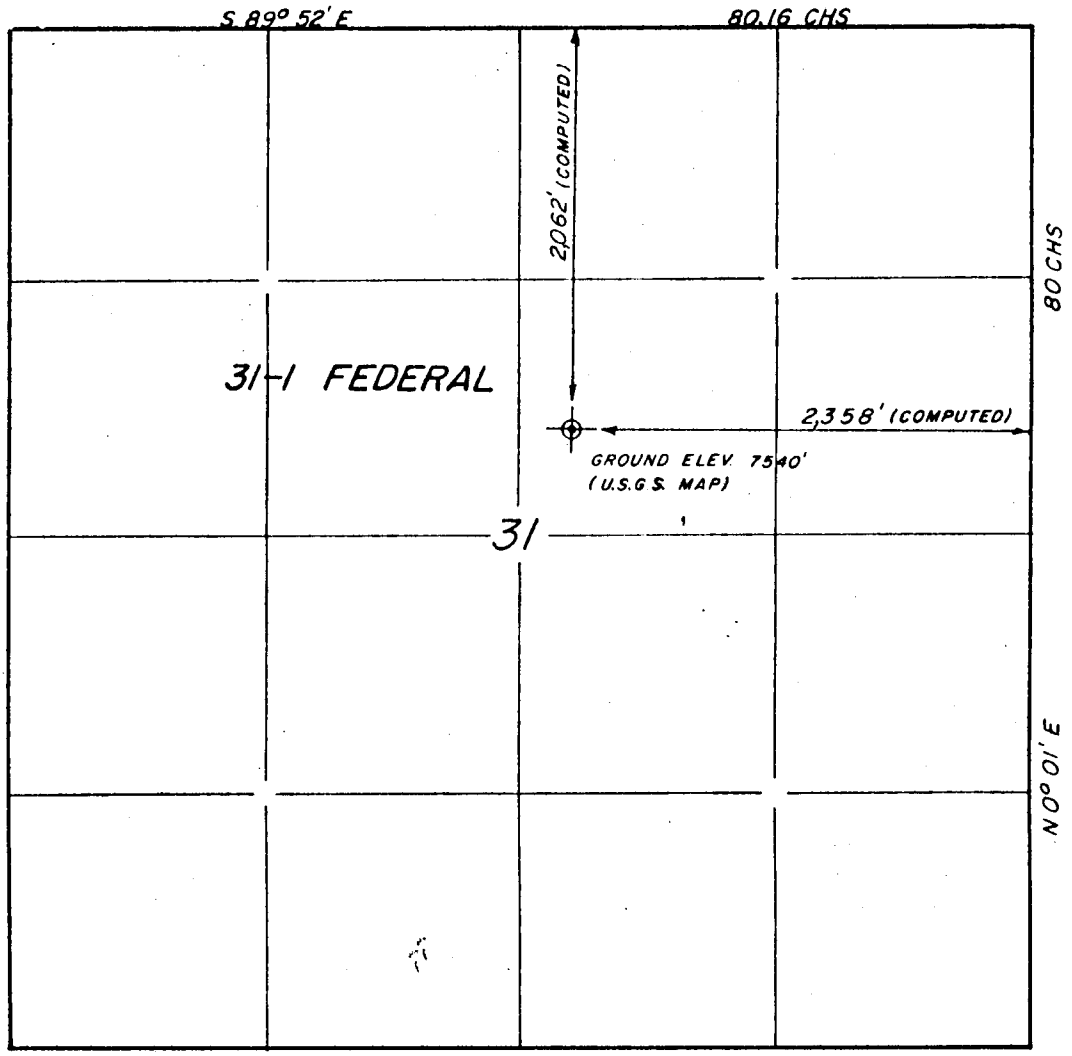
NOTICE OF APPROVAL
*See Instructions On Reverse Side

NECESSARY FLARING OF GAS DURING DRILLING AND COMPLETION APPROVED SUBJECT TO ROYALTY (NTL-4)

St. OFC

BURTON / HAWKS INC.
WELL SITE LOCATION
31-1 ALKALI CANYON FEDERAL

Located in the SW¼ of the NE¼ of Sec. 31, T6S, R4W, U.S.B.&M.



SCALE: 1" = 1000'

NOTES

THE BASIS OF BEARINGS FOR THIS SURVEY WAS DETERMINED BY SOLAR OBSERVATION. ORIGINAL GENERAL LAND OFFICE NOTES AND PLATS ON FILE WITH THE UTAH DEPARTMENT OF NATURAL RESOURCES WERE USED FOR REFERENCE AND CALCULATIONS.

SURVEYORS CERTIFICATE

I hereby certify that this plat was prepared from field notes of an actual survey performed by me, and under my direct supervision.

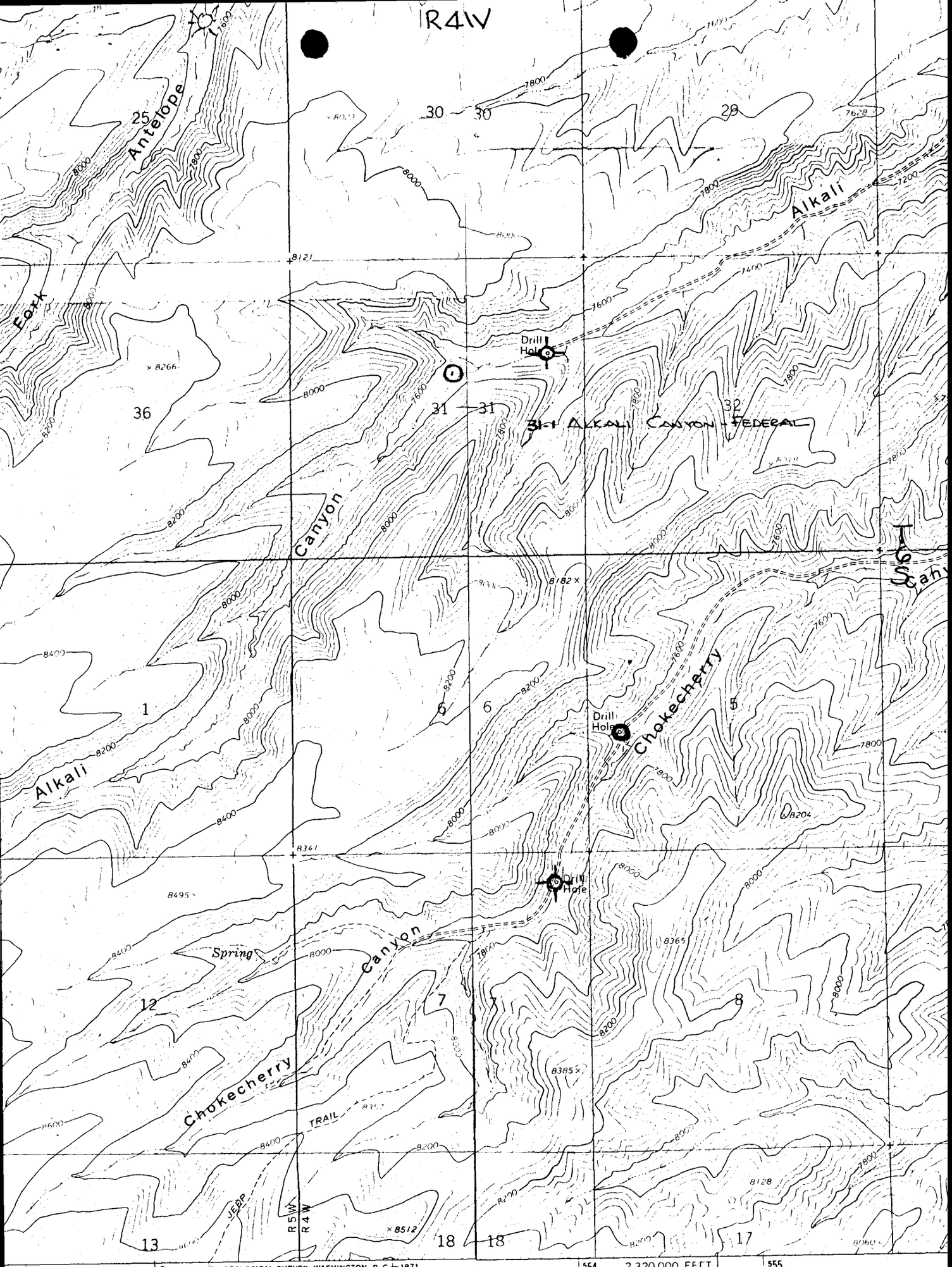
Jerry D. Allred

Jerry D. Allred, Registered Land Surveyor, Cert. No. 3817 (Utah)

ALLRED - PEATROSS ASSOCIATES
Surveying & Engineering Consultants
P O Drawer C
DUCHESNE, UTAH 84021
(801) 738-5352

76-123-010

16 May '79



W. 551 552 553000m.E. 554 2 320 000 FEET 555

110°22'30"

INTERIOR—GEOLOGICAL SURVEY, WASHINGTON, D C—1971

Mapped, edited, and published by the Geological Survey

Control by USGS and USC&GS

Topography by photogrammetric methods from aerial photographs taken 1965. Field checked 1968

Polyconic projection. 1927 North American datum
10,000-foot grid based on Utah coordinate system, central zone
1000-meter Universal Transverse Mercator grid ticks,
zone 12, shown in blue

Fine red dashed lines indicate selected fence lines

ROAD CLASSIFICATION

Unimproved road, fair or dry weather ==========

LOCATION

ANTHRO MTN., UTAH

N3952.5—W11022.5/7.5

1968

UTM
DEC

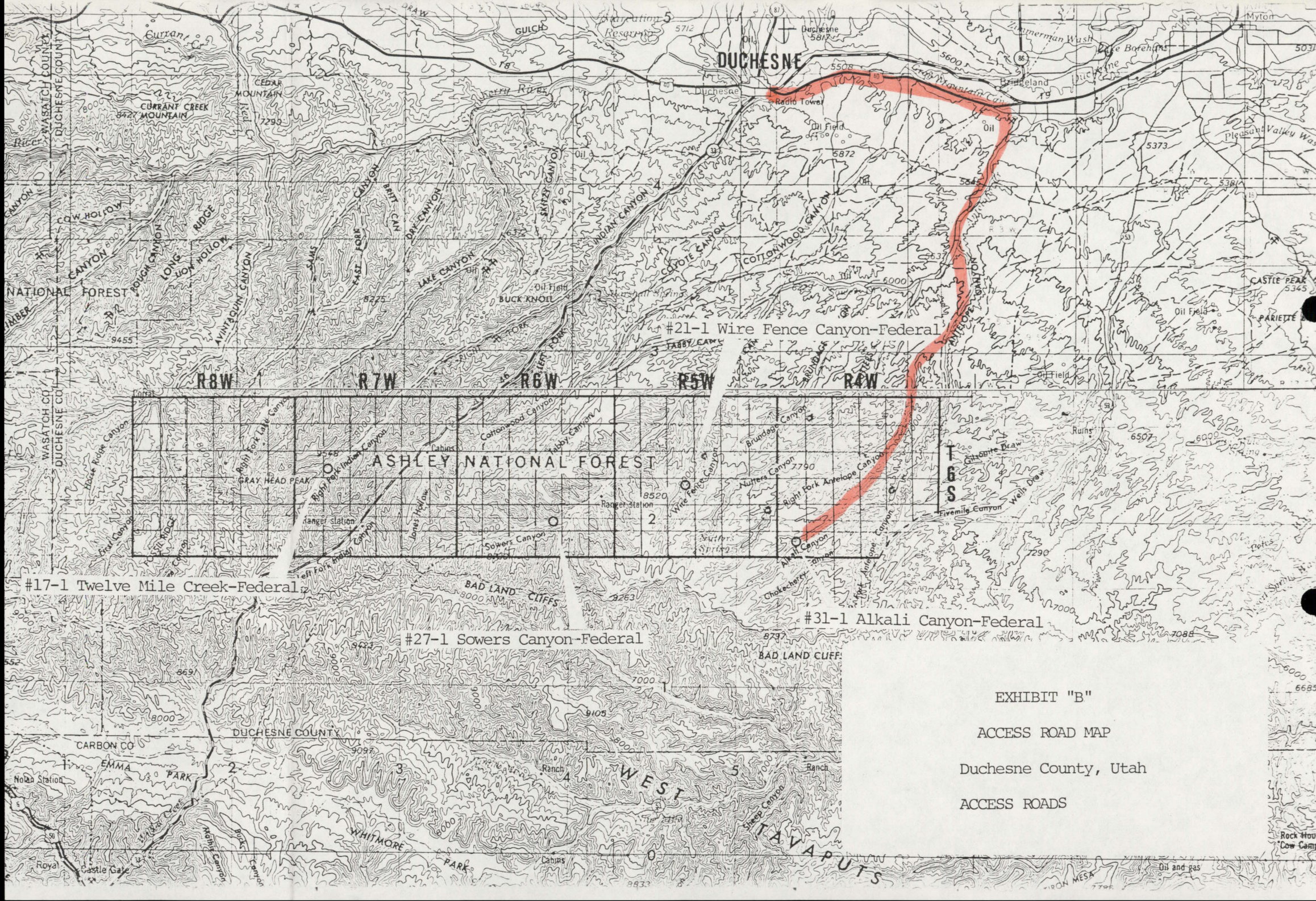
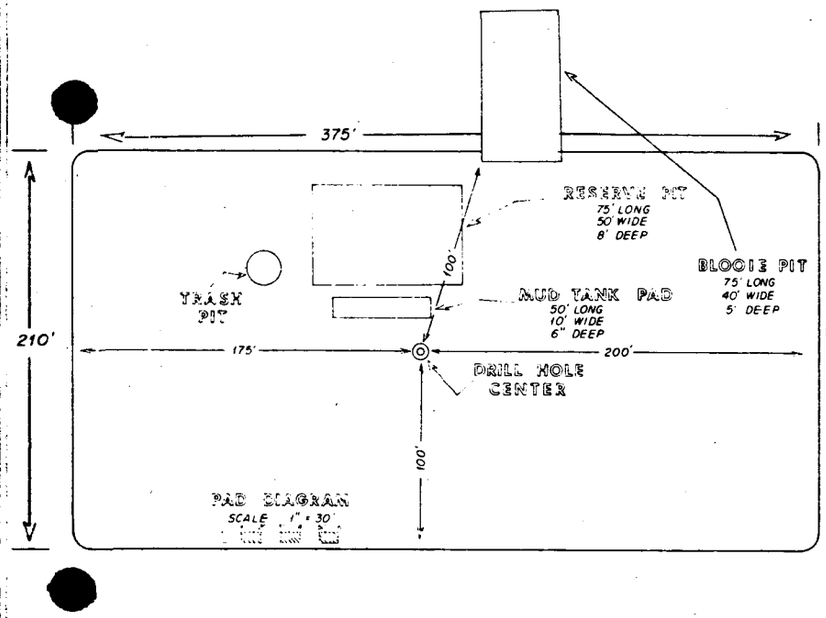

#21-1 Wire Fence Canyon-Federal
#17-1 Twelve Mile Creek-Federal
#27-1 Sowers Canyon-Federal
#31-1 Alkali Canyon-Federal
DUCHESNE
ASHLEY NATIONAL FOREST
R8W
R7W
R6W
R5W
R4W
T 6 S
EXHIBIT "B"
ACCESS ROAD MAP
Duchesne County, Utah
ACCESS ROADS

FIGURE 2

BURTON / HAWKS DRILLING COMPANY

RIG NO. 1



BOILERHOUSE 35' X 8' X 8'

PORTA TOILET

RESERVE PIT 50' X 75' X 8'

MUD TRAILER

MUD HOUSE (ABOVE)

MUD TANK 35' X 10' X 5'

MUD TANK 40' X 10' X 5'

DESILTER 5' X 6'

SHALE SHAKER (ABOVE)

PUMP NO. 2 10' X 28'

PUMP NO. 1 10' X 28'

FUEL TANK

SUB-STRUCTURE 40' X 18' X 9'

PIPE TUB 8' X 36'

CAT WALK

PIPE TUB 8' X 36'

DOG HOUSE (TOP)
WATER TANK (BOTTOM)
40' X 8' X 9'

COMPRESSOR 10' X 40'

COMPRESSOR 10' X 40'

LIGHT PLANT & COMPRESSOR 8X25'

ACCUMULATOR 3' X 6'

JUNK BASKET 7'6" X 22'

PIPE RACK 10' X 28'

PIPE RACK 10' X 28'

SCALE 1" = 6'

RIGGED FOR MUD AND/OR AIR DRILLING

R5W

BURTON/HAWKS

BURTON/HAWKS

PHOENIX

PHOENIX

BURTON/HAWKS

GULF

GULF

GULF

GULF

GULF

SHLEY

FOREST

Wile Trail

Nutters Canyon

Hollow

Wolf

Jeep Trail

Canyon

Jeep Trail

Antelope

Canyon

Right Fork

Canyon

Alkali

Spring Canyon

Boundary

OLD

15 14 13 18 18

22 23 24 19 19

27 26 25 30 30

34 35 36 31 31

3 2 1 6 6

10 11 12 7 7

R4W

T6S

T7S

ASHLEY

NATIONAL FO

Fork

Right

TRAIL

JEEP TRAIL

Spring

Canyon

Alkali Canyon

Canyon

Antelope Canyon

Chokecherry Canyon

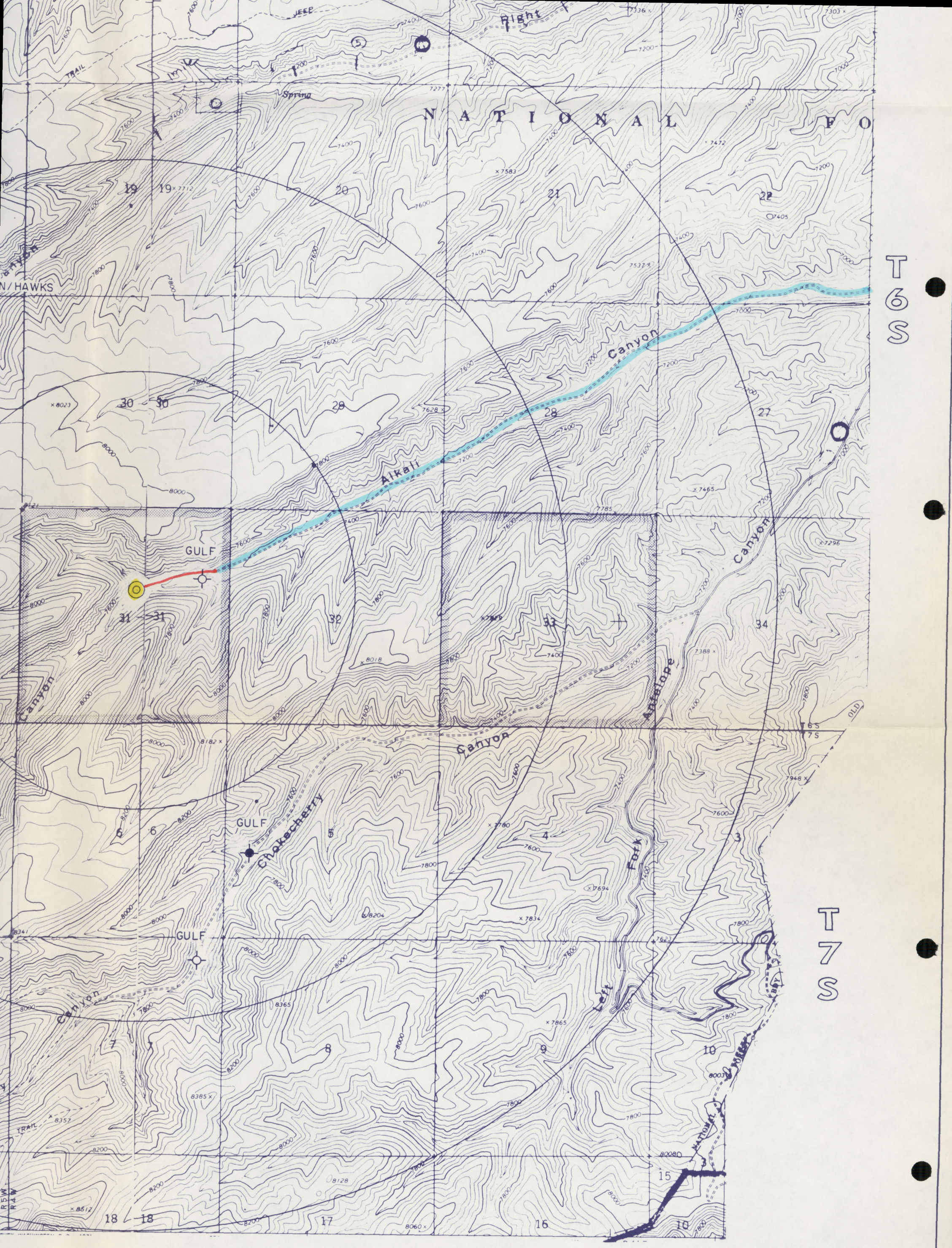
Left Fork

GULF

GULF

GULF

OLD



TOPOGRAPHIC MAP
FIGURE 1
DUCHESNE COUNTY, UTAH

BURTON/HAWKS
No. 31-1 Alkali Canyon-Fed.

SHLEY

L FOREST

PHOENIX

PHOENIX

BURTON/HAWKS

GULF

GULF

GULF

GULF

Nutters

Hollow

Canyon

Fork

Canyon

Canyon

Spring

Canyon

Chokecherry

Alkali

TRAIL

JEEP

OLD INDIAN TREATY BOUNDARY

22

23

24

19

25

26

27

30

31

34

35

36

1

2

3

6

7

10

11

12

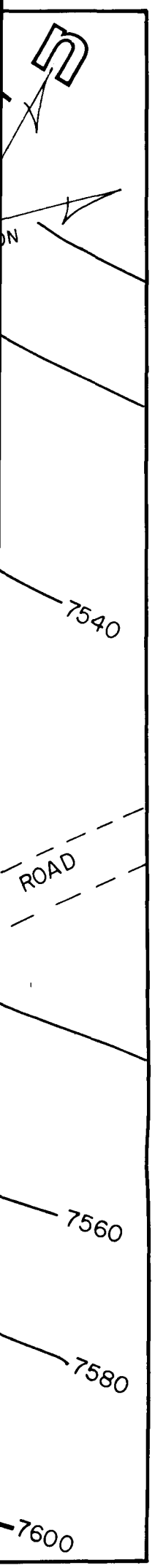
13

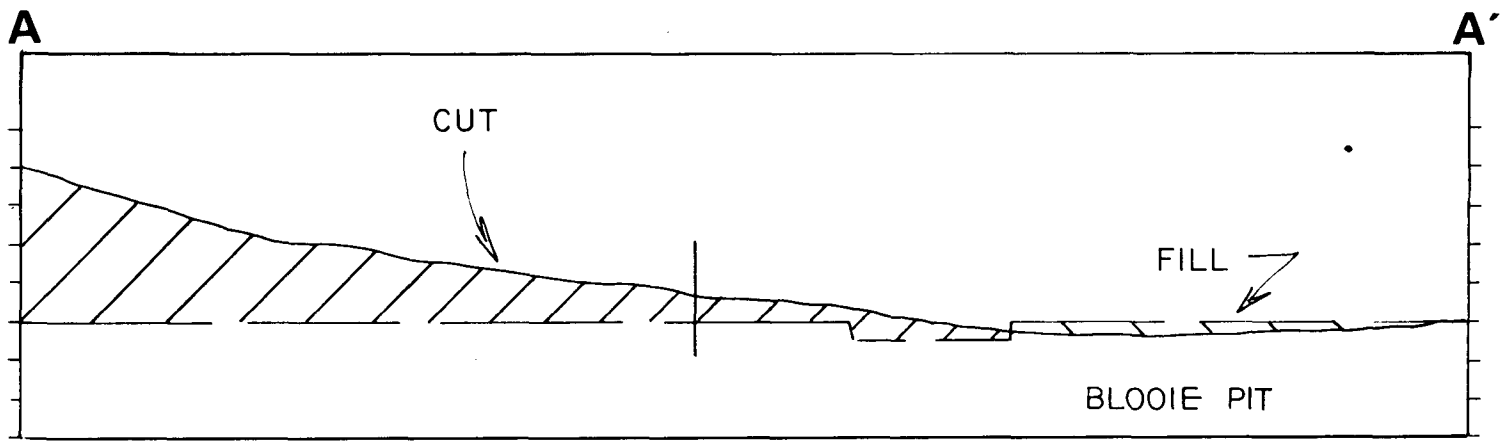
14

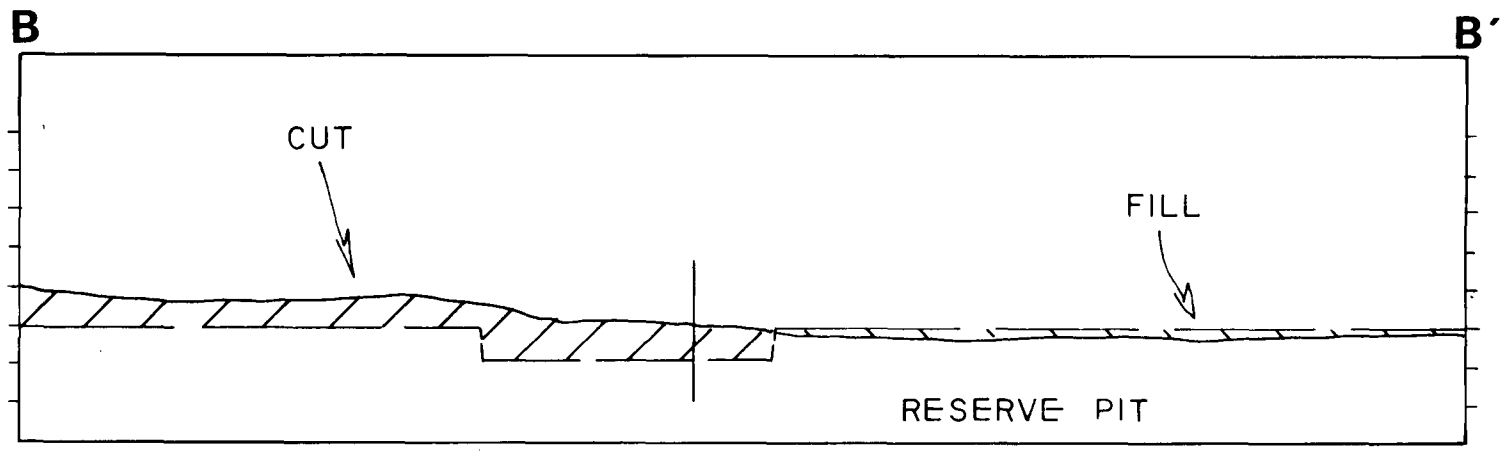
18

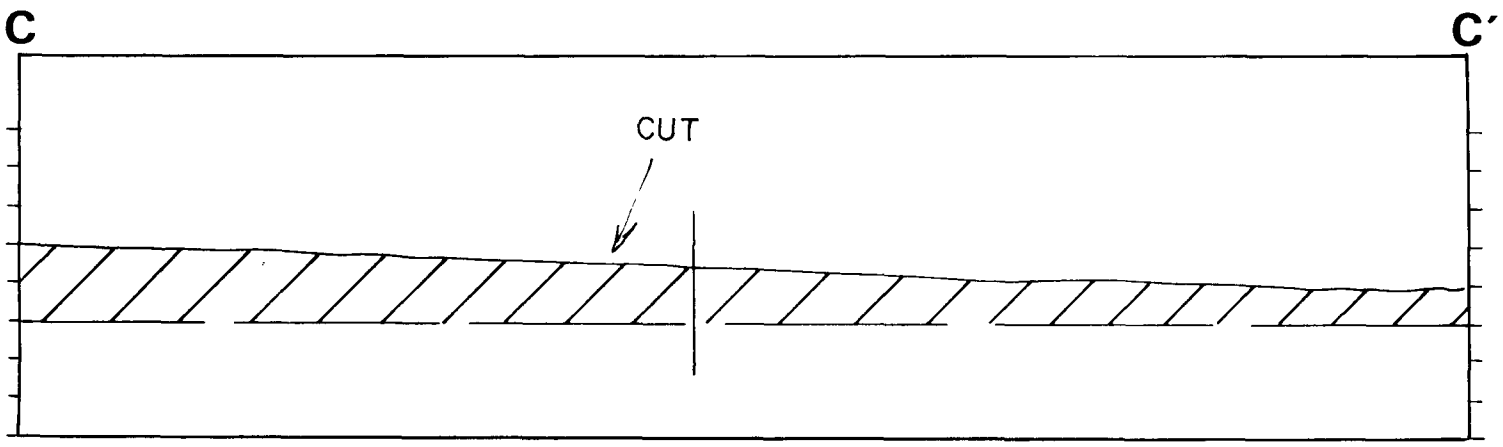
R5W

R4W









BURTON/HAWKS, INC.

EXHIBIT-D

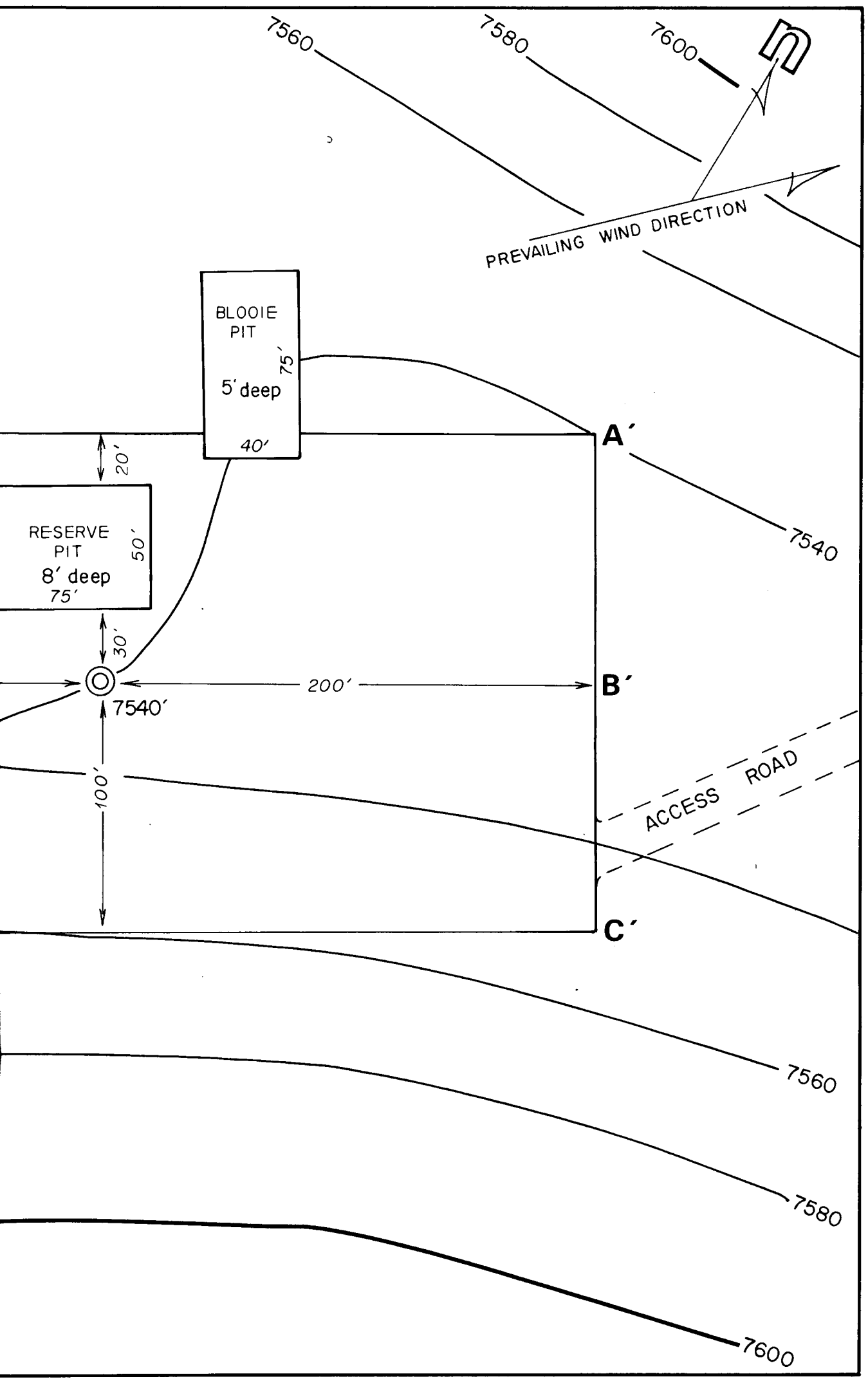
BURTON/HAWKS, INC.
No. 31-1 Alkali Canyon - Federal
SW NE Sec. 31, 6S-4W

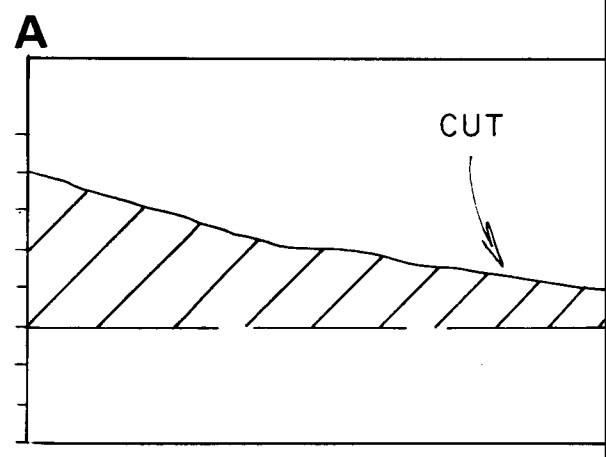
Interpretation by:

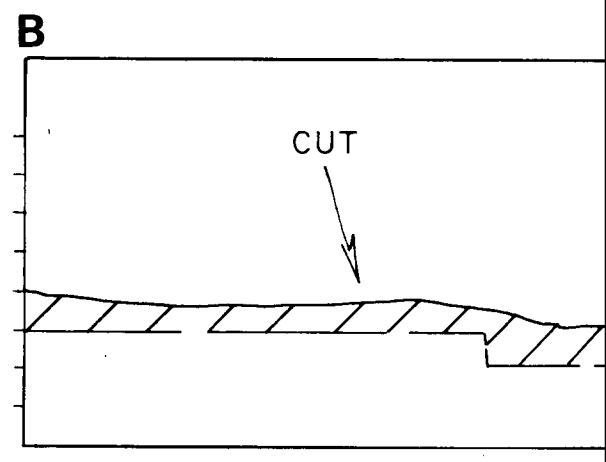
Date: MAY, 1979

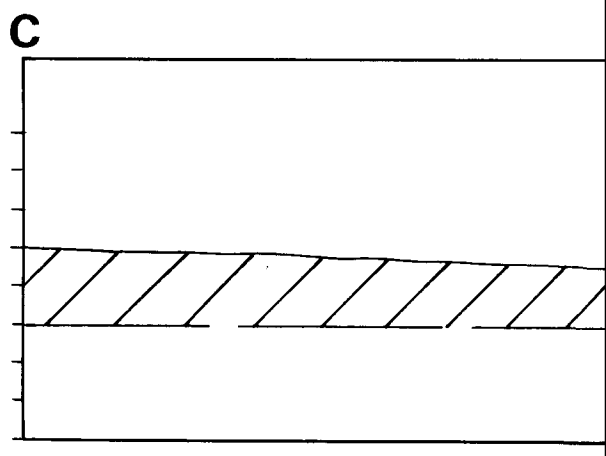
Contour Interval: 20'

Map Scale: 1" = 50 H&V









BURTO

EX

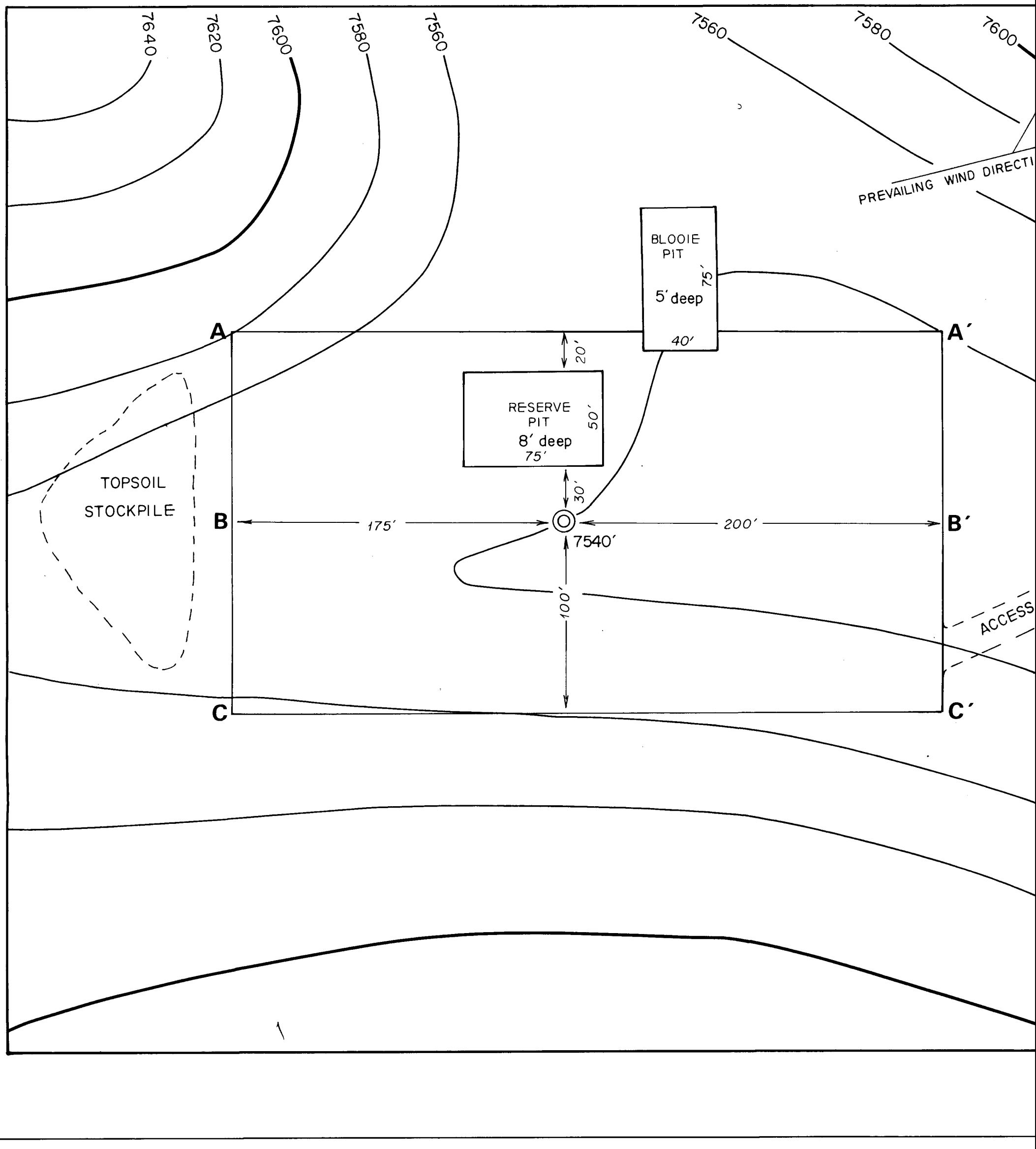
BUR

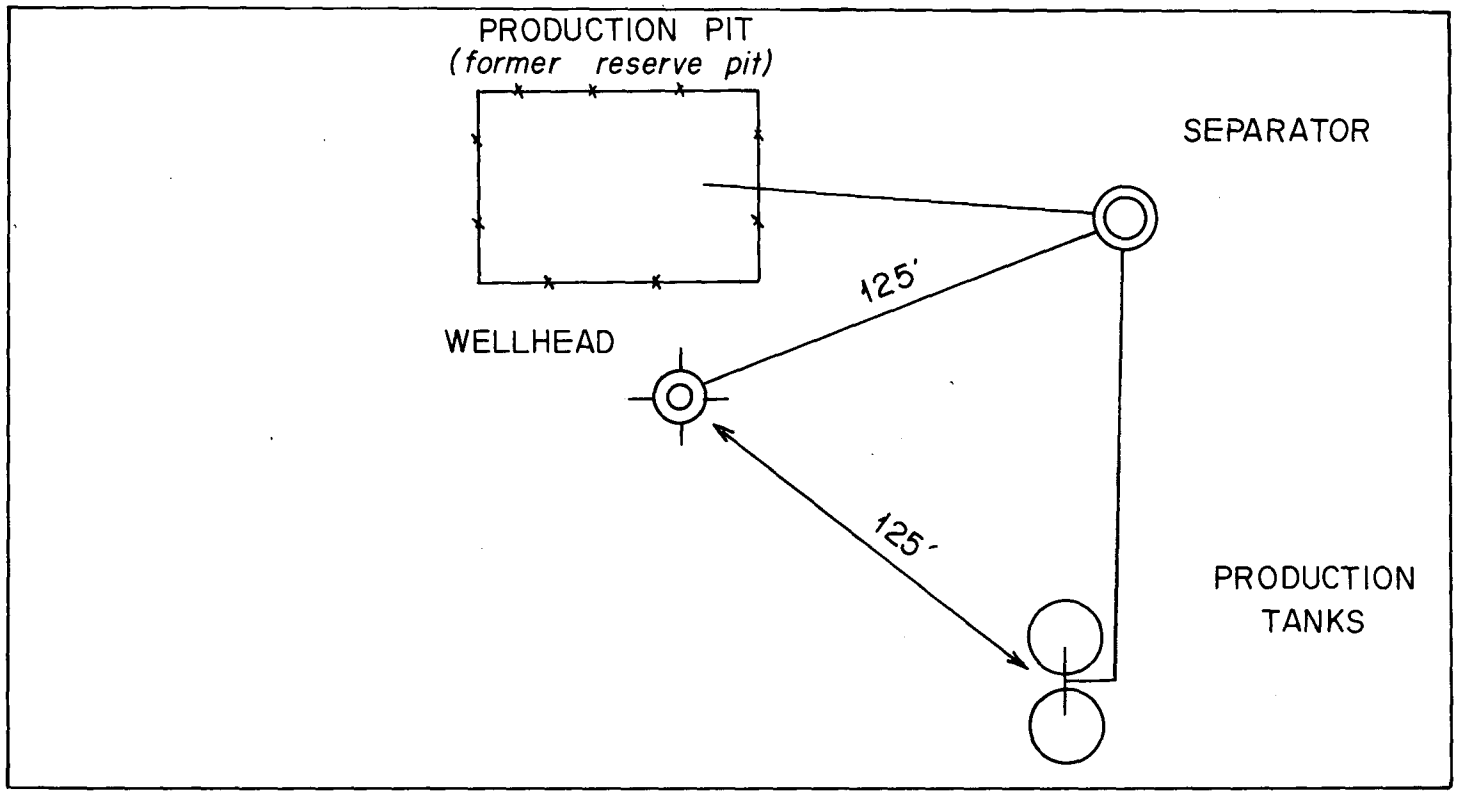
No. 31-1 A

SW N

Interpretation by:

Date: MAY, 1979


7640
7620
7600
7580
7560
7560
7580
7600
PREVAILING WIND DIRECTI
BLOOIE
PIT
5' deep
75'
40'
A
A'
20'
RESERVE
PIT
8' deep
75'
50'
30'
TOPSOIL
STOCKPILE
B
175'
200'
B'
7540'
100'
ACCESS
C
C'



PRODUCTION FACILITIES

EXHIBIT – C

BURTON/HAWKS, INC.

BURTON/HAWKS, INC.

NTL-6 - PLAN OF OPERATION

DATE: May 17, 1979

WELL NAME: No. 31-1 Alkali Canyon-Federal

LOCATION: SW NE Section 31, T6S-R4W
Duchesne County, Utah

#1 Existing Roads:

A. Proposed well site as staked. (Actual staking should include two each 200-foot directional reference stakes).

Exhibit A is a registered land surveyors plat of Section 14 showing the actual footage location of the subject well as measured from the section corners

B. Route and distance from nearest town or locatable reference point to where well access route leaves main road.

Exhibit B is a 1:250,000 scale map showing the location of the nearest town, Duchesne, Utah. The approximate distance is 35 miles southwest of said city. Access road colored blue.

C. Access road(s) to location color-coded or labeled.

Figure 1 is a topographic map (1"=2000') showing the access road (colored blue) and the new acces road (labeled and colored red).

D. If exploratory well, all existing roads within a 3-mile radius (including type of surface, conditions, etc.)

1. Left Fork Antelope Canyon; improved, gravel surface
2. Chokecherry Canyon; improved, dirt surface.
3. Alkali Canyon; improved, dirt surface.

E. If development well, all existing roads within a 1-mile radius of well site.

Not a developement well.

F. Plans for improvement and/or maintenance of existing roads.

No plans for improvement of existing roads unless needed. Maintenance to be performed as required.

#2 Planned Access Roads:

Map showing all necessary access roads to be constructed or reconstructed, showing:

See Figure 1 (Topo Map)

#2 - Planned Access Roads (continued)

(1) Width
12'

(2) Maximum grades
6%

(3) Turnouts
As required.

(4) Drainage design

Any new access roads will be sloped to insure proper drainage.

(5) Location and size of culverts and brief description of any major cuts and fills

As required.

(6) Surfacing material

Native material.

(7) Necessary gates, cattleguards, or fence cuts

As required.

(8) (New or reconstructed roads are to be center-line flagged at time of location staking)

Center line flagged at time of staking.

#3 Location of Existing Wells:

Two-mile radius map if exploratory, or 1-mile radius map if development well, showing and identifying existing:

(1) Water wells

None Observed

(2) Abandoned wells

T7S-R4W - Sec. 5 NW SW Gulf Oil, Sec. 7 NE NE Gulf Oil
T6S-R4W - Sec. 31 SE NE Gulf Oil

(3) Temporarily abandoned wells

None observed

(4) Disposal wells

None observed

(5) Drilling wells

None observed

#3 Location of Existing Wells (continued)

(6) Producing wells

6S-5W - Sec. 24 SESW Phoenix Resources

(7) Shut-in wells

6S-5W - Sec. 25 NENE Burton/Hawks, Inc.

(8) Injection wells

None observed

(9) Monitoring or observation wells for other resources

None observed

#4 Location of Existing and/or Proposed Facilities:

A. Within 1-mile radius of location show the following existing facilities owned or controlled by lessee/operator:

(1) Tank Batteries

None

(2) Production facilities

None

(3) Oil gathering lines

None

(4) Gas gathering lines

None

(5) Injection lines (Indicate if any of the above lines are buried)

None

(6) Disposal lines

None

B. If new facilities are contemplated, in the event of production, show:

(1) Proposed location and attendant lines by flagging if off of well pad

See Exhibit C.

(2) Dimensions of facilities

Production pad (well pad) 210' x 375'

(3) Construction methods and materials

Area to be used for production facilities would be leveled with a dozer. Onsite native materials would be utilized.

(4) Protective measures and devices to protect livestock and wildlife

All pits would be fenced and would be flagged accordingly.

C. Plan for rehabilitation of disturbed areas no longer needed for operations after construction completed:

All disturbed areas not needed for operations will be contoured to match existing terrain and seeded with a seed mixture recommended by the U.S.F.S.

#5 Location and Type of Water Supply:

A. Show location and type of water supply either on map or by written description

Water will be obtained from a permitted source located in T5S-R5W Section 34 (Foy Ranch). See agreement.

B. State method of transporting water, and show any roads or pipelines needed

Water to be hauled by operators equipment over existing roads. Roads colored green on Figure 1.

C. If water well is to be drilled on lease, so state. (No APD for water well necessary, however, unless it will penetrate potential hydrocarbon horizons.)

No water well to be drilled on lease.

#6 Source of Construction Materials:

A. Show information either on map or by written description

Construction materials for proposed drillsite would be native materials from the location.

B. Identify if from Federal or Indian land

Federal surface (Ashley National Forest).

C. Describe where materials, such as sand, gravel, stone, and soil material, are to be obtained and used

In the event that conditions should necessitate graveling of all or part of the access road and location, surfacing materials would be obtained from permitted gravel pits in the local marketing area.

D. Show any needed access roads crossing Federal or Indian lands under Item 2.

See Figure 1.

#7 Methods of Handling Waste Disposal:

Describe methods and location of proposed containment and disposal of waste material, including:

(1) Cuttings

Air drilled cuttings are blown to the blooie pit. It it becomes necessary to switch to mud drilling, drill cuttings would be contained in the reserve pit.

(2) Drilling fluids

Drilling fluids would be contained in the reserve pit.

(3) Produced fluids (oil, water)

Produced fluids would be directed to a test tank or pit for proper disposal.

(4) Sewage

A portable toilet is on location at all times. Sanitation and the disposal of waste will be accomplished within the framework of the Pollution Statement Act (E.O. 11507).

(5) Garbage and other waste material (trash pits should be fenced with small mesh wire to prevent wind scattering trash before being burned or buried)

Trash and other combustables will be burned in a pit that is covered with small mesh fencing. Other garbage will be enclosed in a fenced trash site to await final cleanup.

#7 Methods of Handling Waste Disposal (continued)

(6) Statement regarding proper cleanup of well site area when rig moves out

Immediately after the rig and associated drilling and testing equipment is off the location, the entire location will be policed for trash and other sorts of refuse.

#8 Ancillary Facilities:

Identify all proposed camps and airstrips on a map as to their location, area required, and construction methods. (Camp center and airstrip center lines to be staked on the ground).

No facilities intended for this location.

#9 Well Site Layout:

A plat (not less than 1" = 50') showing:

(1) Cross sections of drill pad with cuts and fills

See Exhibit D.

(2) Location of mud tanks, reserve, burn and trash pits, pipe racks, living facilities, and soil material stockpiles

See Figure 2.

(3) Rig orientation, parking areas, and access roads:

See Figure 2.

(4) Statement as to whether pits are to be lined or unlined. (Approval as used in this section means field approval of location. All necessary staking of facilities may be done at time of field inspection). A registered surveyor is not mandatory of such operations).

Pits will not be lined.

(5) The positioning of pump trucks, frac tanks, lines, etc.

See Exhibit E.

#10 Plans for Restoration of Surface:

State restoration program upon completion of operations, including:

(1) Backfilling, leveling, contouring, and waste disposal; segregation of spoils materials as needed

Upon completion of the operation and if the well is to be abandoned, the location will be backfilled, leveled and contoured to as nearly the original topography as is possible. Backfilling of pits and distured areas will be performed when pit areas are dry enought to support overburden of fill material. Leveling of pit dikes, will be done when contents are dry enough to handle earth moving equipment. Stockpiled topsoil will be distributed over area to facilitate revegatation. Waste disposal see No. 7 (6).

(2) Revegetation and rehabilitation - including access roads (normally per BLM recommendations)

This will be accomplished with the desires of the U.S.F.S. and their recommendation.

(3) Prior to rig release, pits will be fenced and so maintained until cleanup

During drilling operations the reserve pit and blooie pit will be fenced on three sides with the rig side remaining unfenced. This remaining side will be fenced as soon as the rig equipment is moved to allow fencing crews access. This fence will be sheep tight and kept in good repair until clean-up is undertaken.

(5) Timetable for commencement of rehabilitation operations

Commence clean-up operations as soon as possible after drilling operations are completed so that rehab operations can be performed after pits are dry enought to support top soil fill.

#11 Other Information:

General discription of:

(1) Topography, soil characteristics, geologic features, flora and fauna:

The surface is Tertiary Green River. The topography is sttep canyons. Location is in the flattest part of the canyon floor. Soil is generally sandy sediments. Flora consists of elk, deer, rabbits and various other rodents. Fauna consists of pine, cedar, sagebrush, creosot brush and range grasses.

(2) Other surface-use activities and surface ownership of all involved lands

Livestock grazing is the only other surface use activity noted. Surface is forest lands.

(3) Proximity of water, occupied dwellings, archeological, historical, or cultural sites

A. Water - Intermittant small streams in the area.
B. Occupied Dwellings - None noted.
C. Archaelogical sites - See attached Archaelogical clearance
D. Historical/Culteral sites - None noted.

#12 Lessee's or Operator's Representative:

Include the name, address and phone number of the lessee's or operator's field representative who is responsible for assuring compliance with the approved surface use and operations plan.

Burton/Hawks, Inc.
P. O. Box 359
Casper, Wyoming 82602

	Office	Home	Mobile
Robert E. Wellborn	(303) 234-1593	265-8282	----
Rance Denton	(303) 234-1593	266-0923	265-4506
Glenn R. Bochmann	(303) 234-1593	237-7038	----

#13 Certificates:

The following statement is to be incorporated in the plan and must be signed by the lessee's or operator's field representative who is identified in Item No. 12 of the plan.

I hereby certify that I, or persons under my direct supervision have inspected the proposed drill site and access roads; that I am familiar with the conditions which presently exist; and that the statements made in this plan are, to the best of my knowledge, true and correct; and, that the work associated with the operations proposed herein will be performed by BURTON/HAWKS, INC. and its contractors, subcontractors in conformity with this plan and the terms and conditions under which it is approved.

Name and Title
Glenn R. Bochmann
Field Representative

May 18, 1979
Date

#12 Lessee's or Operator's Representative:

Include the name, address and phone number of the lessee's or operator's field representative who is responsible for assuring compliance with the approved surface use and operations plan.

Burton/Hawks, Inc.
P. O. Box 359
Casper, Wyoming 82602

	Office	Home	Mobile
Robert E. Wellborn	(303) 234-1593	265-8282	----
Rance Denton	(303) 234-1593	266-0923	265-4506
Glenn R. Bochmann	(303) 234-1593	237-7038	----

#13 Certificates:

The following statement is to be incorporated in the plan and must be signed by the lessee's or operator's field representative who is identified in Item No. 12 of the plan.

I hereby certify that I, or persons under my direct supervision have inspected the proposed drill site and access roads; that I am familiar with the conditions which presently exist; and that the statements made in this plan are, to the best of my knowledge, true and correct; and, that the work associated with the operations proposed herein will be performed by BURTON/HAWKS, INC. and its contractors, subcontractors in conformity with this plan and the terms and conditions under which it is approved.

Name and Title
Glenn R. Bochmann
Field Representative

May 18, 1979
Date

10-POINT PROGRAM

BURTON/HAWKS, INC.

Attachment to Form 9-331-C "Application to Drill, Deepen, or Plug Back".

No. 31-1 Alkali Canyon-Federal
SWNE Section 31, T6S, R4W
Duchesne County, Utah

1. GEOLOGIC NAME OF SURFACE FORMATION:

Tertiary Green River

2. ESTIMATED TOPS OF IMPORTANT GEOLOGIC MARKERS:

Tertiary Green River A-Zone	2700'
B-Zone	3140'
Left Fork Zone	3200'*
C-Zone	3590'
Wire Fence Zone	3830'*
D-Zone	3980'
E-Zone	4310'
Tertiary Wasatch Formation	4930'*
Total Depth	4950'

3. ESTIMATED DEPTHS OF ANTICIPATED WATER, OIL, GAS, OR OTHER MINERALS:

No high water bearing zones are expected. The formations marked with asterisk (No. 2 above) are potential productive formations.

4. CASING PROGRAM:

A. Conductor Pipe - 30' 13-3/8", 48# cement to surface
B. Surface Casing - 300' 9-5/8", 36# K-55 ST&C, cement to surface
C. Production Casing - 4950' 7", 20# K-55, ST&C cement with 200 sx ±

5. BOP PROGRAM (See Attached Figure 3): ✓

A. 10" - 900 Series Rotating Head
B. 10" - 900 Series Cameron Space-Saver Double-Gate
   1. Pipe Rams
   2. Blind Rams
C. Choke System, Kill lines. BOP's and choke manifold will be installed and pressure tested before drilling out from under surface casing and will then be checked daily as to mechanical operating condition.

6. DRILLING FLUIDS:

Air drilled hole, If a significant flow of water is encountered, soap mist drilling will be utilized.

7. AUXILIARY EQUIPMENT:

A. Kelly Cock
B. Drill pipe float
C. A sub on the floor with a full opening valve to be stabbed into drill pipe when Kelly is out of string.

8. TESTING, LOGGING, CORING, AND FRACTURING:

A. Continuous testing with air drilling.
B. Run Induction-Gamma Ray Log in air filled hole, and a Temperature Log if warranted. If the hole fills with water, run I-ES with GR-SP Log. Run a Density-GR Log, or a Neutron-Density GR-Log if a Porosity Log is warrented. Depending on the hole conditions, completion string may be run prior to logging, with adequate cased hole logs to follow.
C. No coring anticipated.
D. Fracturing or stimulation plans not known at this time. In the event this is needed, Sundry Notice will be filed outlining this program.

9. ABNORMAL PRESSURES OR TEMPERATURES:

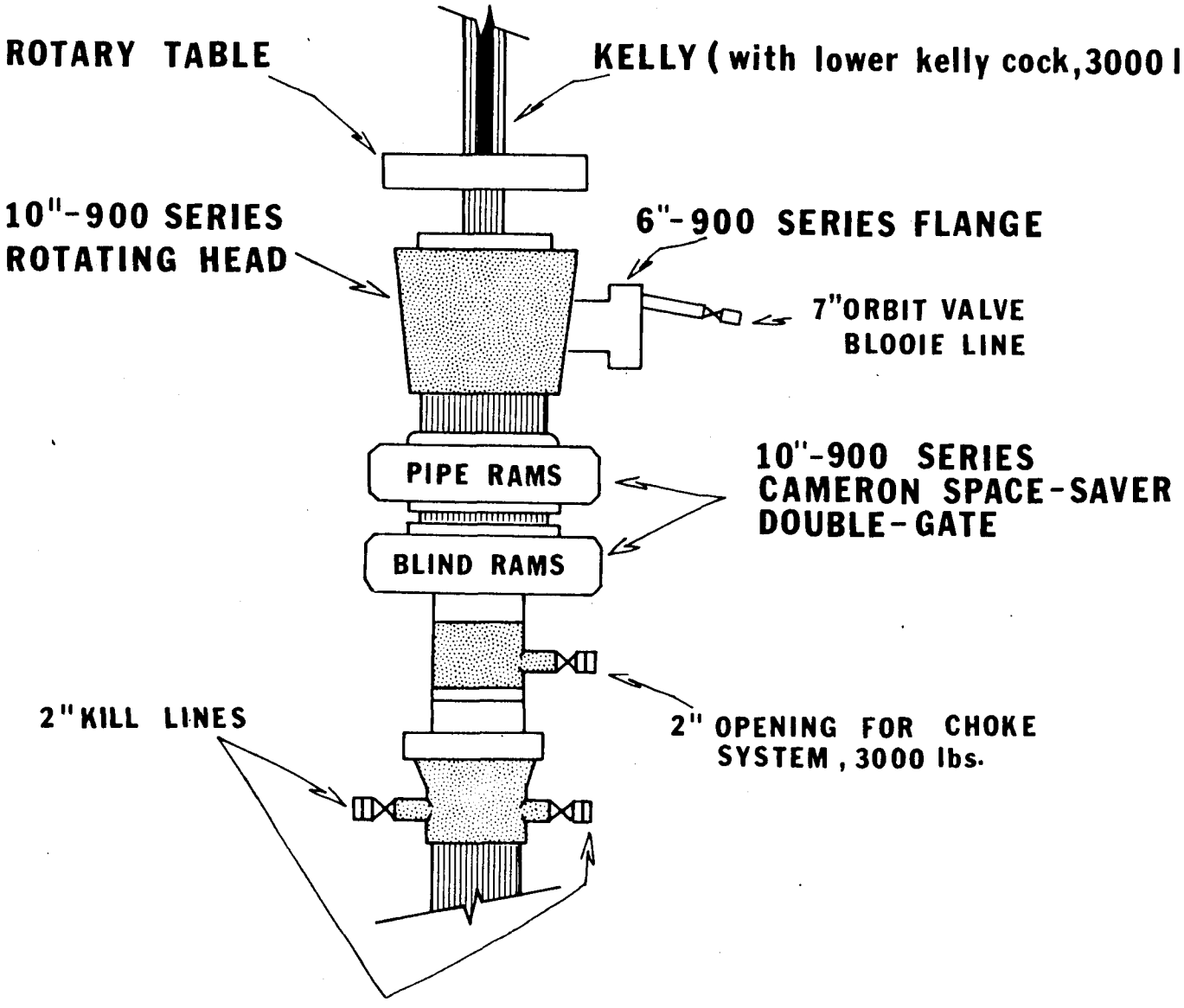
No abnormal pressures or temperatures are known based on information from other wells in the area.

10. STARTING DATE:

June 15, 1979

Burton Hawks Drilling Co.

BOP STACK



rig no. 1

NOT TO SCALE

WELL PROGNOSIS

Antelope Canyon Unit
Burton/Hawks, Inc.
#31-1 Alkali Canyon Federal
SW NE Section 31, T6S-R4W

1. Move on spudder to drill conductor hole, and set 30' of 13-3/8", 48# conductor pipe with cement to surface.

2. Move on Burton/Hawks, Inc. ,- Husky Drilling Rig #1.

3. Drill 12-1/4" hole to 300' and set 300' of 9-5/8", 36# surface casing with cement to surface.

4. Drill 8-3/4" hole to 4950' total depth with air. If commercial oil or gas production is encountered at a shallower depth, this will constitute total depth.

5. Run Inductin-Gamma Ray Log in air filled hole, and a Temperature Log is warranted. If the hole fills up with water, run an I-ES with Gamma Ray-SP Log. Run a Density GR Log, or a Neutron-Density-GR Log if a porosity log is warranted. Depending on hole conditions, completion string may be run prior to logging, with adequate cased-hole logs to follow.

   Projected Formation Tops:

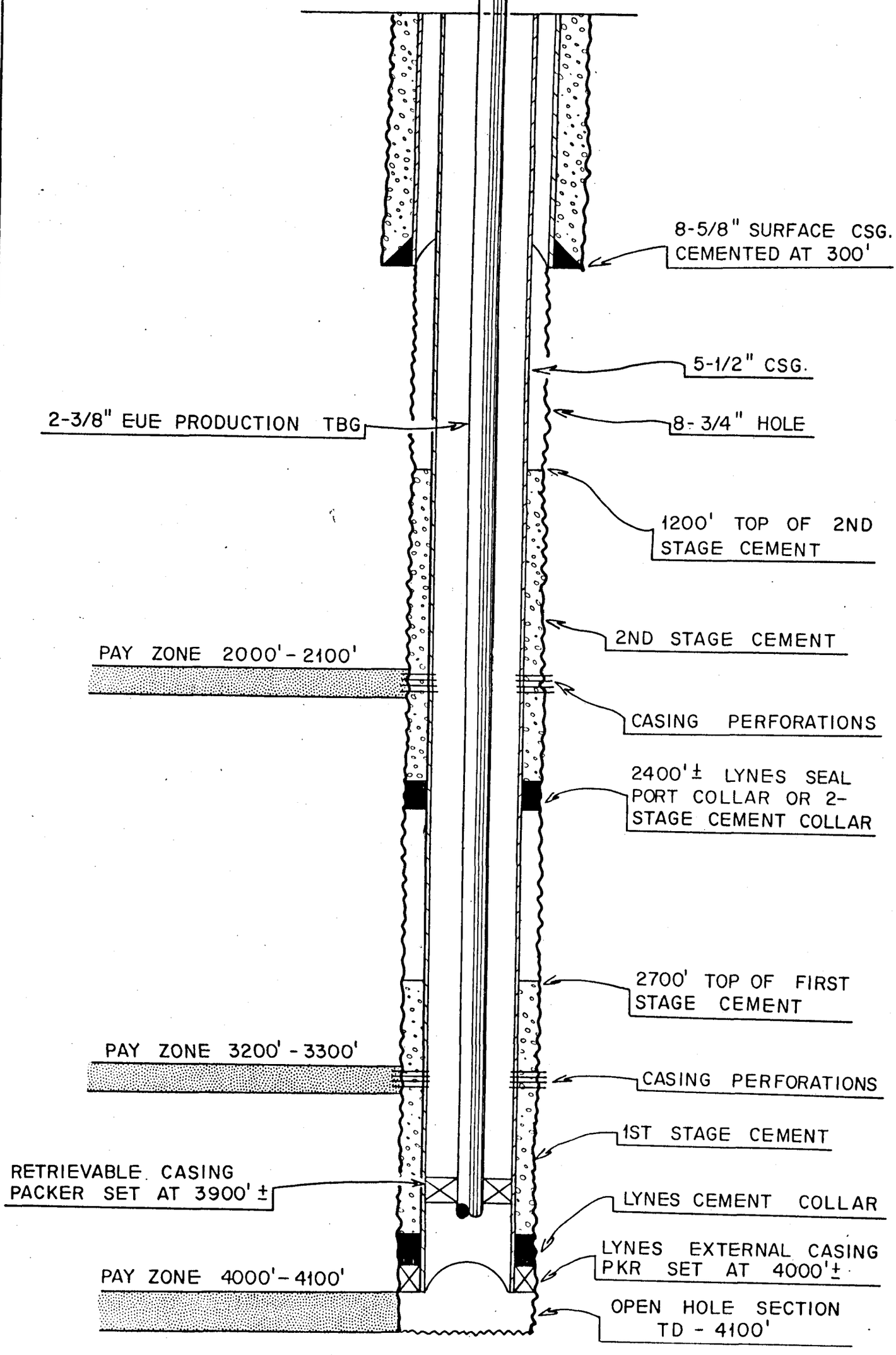
Tertiary Green River Formation		Surface
	A-Zone	2700'
	B-Zone	3140'
	Lost Fork Zone	3200'
	C-Zone	3590'
	Wire Fence Zone	3830'
	D-Zone	3980'
	E-Zone	4310'
Tertiary Wastach Formation		4930'
	Total Depth	4950'

   Completion:

   The attached "Completion Methods" diagram applies to this well. Simple zone completions will be made with the Lynes packer only and there will be no upper perforations.

COMPLETION METHODS

3 --- GAS ZONES – DUCHESNE CO., UTAH



UNITED STATES DEPARTMENT OF AGRICULTURE
FOREST SERVICE

Forest Ranger
Ashley National Forest
Duchesne, Utah 84021

March 27, 1979

2820
Burton/Hawks, Inc.
Alkali Cyn. Fed. 34-1
~~Anthro Mtn.~~ Fed. 21-1
Wire Fence Canyon

RECEIVED
MAR 29 1979
BURTON/HAWKS

Mr. Ed Guynn, District Engineer
U.S. Geological Survey
8440 Federal Building
125 South State Street
Salt Lake City, Utah 84138

Dear Mr. Guynn:

We have reviewed Burton/Hawks, Inc.'s proposed drilling locations and would like to note the items that may be effected.

No known archaeological or historical sites have been identified.

1. Our forest archaeologist does not have time to do the required cultural surveys. We request that Burton/Hawks furnish an approved archaeologist to survey the locations and access roads after staking. We have attached a current list of approved archaeologists.

2. Both ~~Anthro Mtn.~~ Wire Fence Canyon Fed. 21-1 and Alkali Canyon Fed. 34-1 require extension of existing roads. We would prefer to work with their surveyors to flag the access routes prior to surveying and staking.

3. Access to ~~Alkali~~ Canyon Fed. ~~34-1~~ NW NE 34 ~~Anthro Mt~~ Wire Fence Canyon requires crossing private land. We suggest an approved agreement between Burton/Hawks and the private landowner be submitted with the operating plan. This agreement should include access for exploratory drilling, partial and/or total restoration and operation-maintenance requirements.

4. If drilling operations take place during the grazing season, we request that cattleguards be installed at fence crossings. The cattleguards should be the H-20 type with built-in cleanouts. We will provide detailed specifications during the review of the operating plan.

5. ~~Anthro Mtn.~~ Wire Fence Canyon Fed. 21-1 is located in Wire Fence Canyon which is extremely narrow. A large drill pad will not fit the available space without cutting in the unstable side slopes. Depending on the size of pad, we are confident some modified drilling arrangements can be developed to permit drilling this location.

6200-11A (1-69)

Other than the items mentioned above, we have no objection to the surveying and staking of the proposed locations and access roads.

Thank you for this opportunity to review the proposed locations. We look forward to reviewing the surface use and operations plan.

Sincerely,

Henry J. Janssen

for

A. J. Frandsen
District Forest Ranger

Enclosure

cc: Burton/Hawks, Inc.

STATE OF UTAH
DIVISION OF OIL, GAS, AND MINING

** FILE NOTATIONS **

Date: May 31, 1979

Operator: Burton/Hawks, Inc.

Well No: Alkali Canyon Federal 31-1

Location: Sec. 31 T. 6S R. 4W County: Duchesne

File Prepared: / / Entered on N.I.D.: /✓/

Card Indexed: /✓/ Completion Sheet: /✓/

✓API Number: 43-013-30494

CHECKED BY:

Administrative Assistant: _____

Remarks:

Petroleum Engineer: M.J. Minder 6-11-79

Remarks:

Director: _____

Remarks:

INCLUDE WITHIN APPROVAL LETTER:

#2

Bond Required: / / Survey Plat Required: / /

Order No. _____ Surface Casing Change / /
to _____

Rule C-3(c), Topographic exception/company owns or controls acreage within a 660' radius of proposed site / /

O.K. Rule C-3 / / O.K. In _____ Unit

Other:

/✓/ Letter Written/Approved

BURTON/HAWKS,INC.

First National Bank Building
P. O. Box 359
Casper, Wyoming 82602
307/234/1593

June 6, 1979

Mr. Mike Mender
Division of Oil, Gas, and Mining
State of Utah
1588 West North Temple
Salt Lake City, Utah 84116

Re: Burton/Hawks, Inc.
Alkali Canyon 31-1
SW NE Section 31, T6S, R4W
Duchesne County, Utah

Dear Mr. Mender:

We are requesting an exception to the standard spacing pattern for this well. The U.S. Forest Service inspected this area prior to our staking the location and determines that this location in Alkali Canyon would take the least dirt work and cause the least damage to the environment (see note on accompanying USFS letter). The proposed unorthodox location is the result of the severe topography in this region.

There are no other leaseholders within a 660" radius of our proposed location.

Thank you,

BURTON/HAWKS, INC.

Glenn R. Bochmann
Field Representative

GRB:kca
Encls.

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING
1588 West North Temple
Salt Lake City, Utah 84116
(801) 533-5771

June 11, 1979

BURTON/HAWKS INC
P O BOX 359
CASPER WY 82602

Re: Well No. Sowers Canyon Federal 27-1, Sec. 27, T. 6S, R. 6W, Duchesne Ct., UT
Well No. Wire Fence Canyon 21-1, Sec. 21, T. 6S, R. 5W, Duchesne County, UT
Well No. Twelve Mile Creek Fed. 17-1, Sec. 17, T. 6S, R. 7W, Duchesne Ct., UT
Well No. Alkali Canyon Fed. 31-1, Sec. 31, T. 6S, R. 7W, Duchesne County, UT

Gentlemen:

The State of Utah, General Rules and Regulations, and Rules of Practice and Procedure, amended March 22, 1978, Rule C-3, "General Well Spacing Requirements" reads as follows:

(a) The spacing of wells in pools for which drilling units have been established shall be governed by special rules for that particular pool.

(b) All wells drilled for oil and/or gas which are not within an area covered by a special area spacing rule or which are not within a pool for which drilling units have been established, shall be located not less than 500 feet from any property or lease line or from the boundary of any legal subdivision comprising a governmental quarter-quarter section or equivalent lot or lots of comparable size and location and not less than 1000 feet from any oil well, or 4960 feet from any gas well, unless otherwise specifically permitted by order of the Commission after notice and hearing, unless an exception is granted by the Commission pursuant to Rule C-3(c).

(c) The Commission may grant an exception to the requirements of (b) above as to the situs of a particular well location, without notice and hearing, where an application has been filed in due form and;

(1) The necessity for an unorthodox location is based on topographical, and/or geological conditions, and;

(2) The ownership of all oil and gas leases within a radius of 660 feet of the proposed location is common with the ownership of the oil and gas leases under the proposed location, or all owners of oil and gas leases within such radius consent in writing to the proposed location.

(d) Whenever an exception is granted, the Commission may take such action as will offset any advantage which the person securing the exception may obtain over other producers by reason of the unorthodox location.

(e) The spacing requirements of this rule shall not apply in cases where, in the opinion of the Commission, engineering practices have proven otherwise.

Your location appears to be an unorthodox well location and if it cannot be relocated to comply with Rule C-3(b) please submit an application for exception as outlined in Rule C-3(c).

You are also requested to furnish substantial information and data to support your application for an exception location. This may be in the form of a statement as to why this well cannot be located on general spacing and must be placed at the proposed location; it may include charts, maps, letters or other data which will provide this Division sufficient information on which to base a decision.

Yours very truly,

DIVISION OF OIL, GAS, AND MINING

Michael T. Minder

Michael T. Minder, Geological Engineer

MTM/lw

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING
1588 West North Temple
Salt Lake City, Utah 84116
(801) 533-5771

June 12, 1979

BURTON/HAWKS INC
P O BOX 359
CASPER WY 82602

Re: Well No. Sowers Canyon Federal 27-1, Sec. 27, T6S, R6W, Duchesne County, UT
Well No. Alkali Canyon Federal 31-1, Sec. 31, T6S, R7W, Duchesne County, UT

Gentlemen:

Insofar as this office is concerned, approval to drill the above referred to wells on said unorthodox location is hereby granted in accordance with Rule C-3(c), General Rules and Regulations and Rules of Practice and Procedure.

Should you determine that it will be necessary to plug and abandon these wells, you are hereby requested to immediately notify the following:

MICHAEL T. MINDER - Geological Engineer
HOME: 876-3001
OFFICE: 533-5771

Enclosed please find Form OGC-8-X, which is to be completed whether or not water sands (aquifers) are encountered during drilling. Your cooperation in completing this form will be appreciated.

Further, it is requested that this Division be notified within 24 hours after drilling operations commence, and that the drilling contractor and rig number be identified.

The API numbers assigned to these wells are as follows:

Sowers Canyon Federal 27-1 , 43-013-30493
Alkali Canyon Federal 31-1 , 43-013-30494

Very truly yours,

DIVISION OF OIL, GAS, AND MINING

Cleon B. Feight

Cleon B. Feight, Director

/lw

cc: U. S. Geological Survey

Oil and Gas Drilling

EA No. 375-79

United States Department of the Interior
Geological Survey
8440 Federal Building
Salt Lake City, Utah 84138

Usual Environmental Analysis

Lease No. U-8943-A

Operator Burton & Hawks, Incorporated Well No. 31-1

Location 2358' FEL & 2062' FENL Sec. 31 T. 6S R. 4W

County Duchesne State Utah Field Wildcat

Status: Surface Ownership Public Minerals Federal

Joint Field Inspection Date June 8, 1979

Participants and Organizations:

Greg Darlington	U.S. Geological Survey, Vernal
Jerry Larson	Forest Service, Duchesne
Joel Frandsen	Forest Service, Duchesne
Dave Black	Forest Service, Vernal
Glenn Bochmann	Burton & Hawks, Incorporated
Dallas Galley	D.E. Casada Construction

Related Environmental Analyses and References:

(1)

(2)

Elev 7458'

Analysis Prepared by: Greg Darlington
Environmental Scientist
Vernal, Utah

Date June 12, 1979

Proposed Action:

On May 29, 1979, Burton & Hawks, Incorporated filed an Application for Permit to Drill the No. 31-1 exploratory well, a 4950-foot gas test of the Green River and Wasatch Formations; located at an elevation of 7540 ft. in the SW¼ NE¼ Section 31, T. 6S., R. 4W. on Federal mineral lands and Public surface; lease No. U-8943. As an objection was raised to the wellsite, it was rotated 30°. This did not change the ¼ ¼ coordinates. There was no objection raised to the access road.

A rotary rig would be used for the drilling. An adequate casing and cementing program is proposed. Fresh-water sands and other mineral-bearing formations would be protected. A Blowout Preventor would be used during the drilling of the well. The proposed pressure rating should be adequate. Details of the operator's NTL-6 10-Point Subsurface Plan are on file in the USGS District Office in Salt Lake City, Utah and the USGS Northern Rocky Mountain Area Office in Casper, Wyoming. The 13-Point Surface Protection Plan is on file in the District Office in Salt Lake City.

A working agreement has been reached with the U.S. Forest Service, the controlling surface agency. Rehabilitation plans would be decided upon as the well neared completion; the Surface Management Agency would be consulted for technical expertise on those arrangements.

The operator proposes to construct a drill pad 375 ft. wide by 200 ft. long which includes a reserve pit 50 ft. by 75 ft. A new access road would be constructed at least 15 ft. wide by .3 miles long and an existing road would be upgraded to at least 15 ft. wide by 6 miles long from a maintained road at the National Forest boundary. The operator proposes to construct production facilities on disturbed area of the proposed drill pad. If production is established, plans for a gas flow line would be submitted to the appropriate agencies for approval. The anticipated starting date is upon approval and duration of drilling activities would be about 30 days.

Location and Natural Setting:

The proposed drillsite is approximately 35 miles south of Duchesne, Utah, the nearest town. A fair road runs to within 1600 ft. of the location. This well is a wildcat.

Topography:

The wellpad is up against a fairly steep ridge on the north side of a narrow valley. It is mostly located on an alluvial deposit although some cut will be necessary into the hillside to construct the pad.

Geology:

The surface geology is tertiary Green River Formation. The soil is a sandy clay with mixed shale and sandstone gravels. No geologic hazards are known near the drillsite. Seismic risk for the area is minor. Anticipated geologic tops are filed with the 10-Point Subsurface Protection Plan.

Approval of the proposed action would be conditioned that adequate and sufficient electric/radioactive/density logging surveys would be made to locate and identify any potential mineral resources. Production casing and cementing would be adjusted to assure no influence of the hydrocarbon zones through the well bore on these minerals. In the event the well is abandoned, cement plugs would be placed with drilling fluid in the hole to assure protection of any mineral resources.

A geologic review of the proposed action has been furnished by the Area Geologist, U.S. Geological Survey, Salt Lake City, Utah.

The operator's drilling, cementing, casing and blowout prevention programs have been reviewed by the Geological Survey engineers and determined to be adequate.

Soils:

No detailed soil survey has been made of the project area. The top soils in the area range from a sandy clay to a clay type soil. The soil is subject to runoff from rainfall and has a high runoff potential and sediment production would be high. The soils are mildly to moderately alkaline and support the salt-desert shrub community.

Top soil would be removed from the surface and stockpiled. The soil would be spread over the surface of disturbed areas when abandoned to aid in rehabilitation of the surface. Rehabilitation is necessary to prevent erosion and encroachment of undesired species on the disturbed areas. The operator proposes to rehabilitate the location and access roads per the recommendations of the Bureau of Land Management.

Approximately 2.3 acres of land would be stripped of vegetation. This would increase the erosional potential. Proper construction practice, construction of water bars, reseeding of slope-cut area would minimize this impact.

Air:

No specific data on air quality is available at the proposed location. There would be a minor increase in air pollution due to emissions from rig and support traffic engines. Particulate matter would increase due

to dust from travel over unpaved dirt roads. The potential for increased air pollution due to leaks, spills, and fire would be possible.

Relatively heavy traffic would be anticipated during the drilling-operations phase, increasing dust levels and exhaust pollutants in the area. If the well was to be completed for production, traffic would be reduced substantially to a maintenance schedule with a corresponding decrease of dust levels and exhaust pollutants to minor levels. If the project results in a dry hole, all operations and impact from vehicular traffic would cease after abandonment. Due to the limited number of service vehicles and limited time span of their operation, the air quality would not be substantially reduced.

Toxic or noxious gases would not be anticipated.

Precipitation:

Annual rain fall should range from about 8 to 11" at the proposed location. The majority of the numerous drainages in the surrounding area are of a non-perennial nature flowing only during early spring runoff and during extremely heavy rain storms. This type of storm is rather uncommon as the normal annual precipitation is around 8".

Winds are medium and gusty, occuring predominately from west to east. Air mass inversions are rare. The climate is semi-arid with abundant sunshine, hot summers and cold winters with temperature variations on a daily and seasonal basis.

Surface Water Hydrology:

A non-perennial drainage which presently had a stream of water in it was about 50 feet to the south of the pad. A small drainage, presently blocked off by a 3 foot high berm, crosses parts of the pad and will be filled in where required when the pad is constructed.

Drainage is toward Antelope Creek, which flows to the Duchesne River, which in turn flows to the Green River.

Some additional erosion would be expected in the area since surface vegetation would be removed. If erosion became serious, drainage systems such as water bars and dikes would be installed to minimize the problem. The proposed project should have minor impact on the surface water systems. The potentials for pollution would be present from leaks or spills. The operator is required to report and clean-up all spills or leaks.

Ground Water Hydrology:

Some minor pollution of ground water systems would occur with the introduction of drilling fluids (filtrate) into the aquifer. This is

normal and unavoidable during rotary drilling operations. The potential for communication, contamination and comingling of formations via the well bore would be possible. The drilling program is designed to prevent this. There is need for more data on hydrologic systems in the area and the drilling of this well may provide some basic information as all shows of fresh water would be reported. Water production with the gas would require disposal of produced water per the requirements of NTL-2B. The depths of fresh water formations are listed in the 10-Point Subsurface Protection Plan. The pits would be unlined. If fresh water should be available from the well, the owner or surface agency may request completion as a water well if given approval.

Vegetation:

Deep sagebrush and native grasses were at the pad location. Cedars and pine trees and cottonwoods were nearby.

Proposed action would remove about 2.3 acres of vegetation. Removal of vegetation would increase the erosional potential and there would be a minor decrease in the amount of vegetation available for grazing.

The operator proposes to rehabilitate the surface upon completion of operations in a manner suitable to the U.S. Forest Service and should consult further with them regarding this.

Wildlife:

The fauna of the area consists predominantly of mule deer, elk, coyotes, rabbits, foxes, and varieties of small ground squirrels and other types of rodents and various types of reptiles. The area is used by man for the primary purpose of grazing domestic livestock and sheep. The birds of the area are raptors, finches, ground sparrows, magpies, crows, and jays.

An animal and plant inventory has been made by the U.S. Forest Service. No endangered plants or animals are known to inhabit the project area.

Social-Economic Effect:

An on the ground surface archaeological reconnaissance would be required prior to approval of the proposed action. Appropriate clearances would then be obtained from the surface managing agency. If a historic artifact, an archaeological feature or site is discovered during construction operations; activity would cease until the extent, the scientific importance, and the method of mitigating the adverse effects could be determined by a qualified cultural resource specialist. (DONE)

There are no occupied dwellings or other facilities of this nature in the general area. Minor distractions from aesthetics would occur over

the lifetime of the project and is judged to be minor. All permanent facilities placed on the location would be painted a color to blend in with the natural environment. Present use of the area is grazing, recreation, and oil and gas activities.

Noise from the drilling operation may temporarily disturb wildlife and people in the area. Noise levels would be moderately high during drilling and completion operations. Upon completion, noise levels would be infrequent and significantly less. If the area is abandoned, noise levels should return to pre-drilling levels.

The site is not visible from any major roads. After drilling operations, completion equipment would be visible to passersby of the area but would not present a major intrusion.

The economic effect on one well would be difficult to determine. The overall effect of oil and gas drilling and production activity are not significant in Duchesne County, Utah.

But should this well discover a significant new hydrocarbon source, local, state, and possible national economics might be improved. In this instance, other development wells would be anticipated, with substantially greater environmental and economic impacts.

Should the wellsite be abandoned, surface rehabilitation would be done according to the surface agency's requirements and to USGS's satisfaction. This would involve leveling, contouring, reseeding, etc., of the location and possibly the access road. If the well should produce hydrocarbons, measures would be undertaken to protect wildlife and domestic stock from the production equipment.

This site is in the Ashley National Forest. There are no national, state, or local parks, wildlife refuges or ranges, grasslands, monuments, trails or other formally designated recreational facilities near the proposed location.

Waste Disposal:

The mud and reserves pits would contain all fluids used during the drilling operations. A trash pit cage would be utilized for any solid wastes generated at the site and would be removed at the completion of the operations. Sewage would be handled according to State sanitary codes. For further information, see the 13-Point Surface Plan.

Alternative to the Proposed Action:

(1) Not approving the proposed permit-The oil and gas lease grants the lessee exclusive right to drill for, mine, extract, remove and dispose of all oil and gas deposits. Under leasing provisions, the Geological Survey has an obligation to allow mineral development if the environ-

mental consequences are not too severe or irreversible. Upon rehabilitation of the site, the environmental effects of this action would be substantially mitigated, if not totally annulled. Permanent damage to the surface and subsurface would be prevented as much as possible under USGS and other controlling agencies supervision with rehabilitation planning reversing almost all effects. Additionally, the growing scarcity of gas should be taken into consideration. Therefore, the alternative of not proceeding with the proposed action at this time is rejected.

(2) Minor relocation of the wellsite and access road or any special, restrictive stipulations or modifications to the proposed program would not significantly reduce the environmental impact. There are no severe vegetative, animal or archaeological-historical-cultural conflicts at the site. Since only a minor impact on the environment would be expected, the alternative of moving the location is rejected. At abandonment, normal rehabilitation of the area such as contouring, reseeding, etc., would be undertaken with an eventual return to the present status as outlined in the 13-Point Surface Plan.

(3) Drilling should be allowed provided the following mitigative measures are incorporated into the proposed APD and adhered to by the operator.

(a) The pad is to be rotated about 30° to alleviate extensive cut and fill.

(b) The reserve pit and blooie pit are to be rotated 180° about the wellsite in the new pad alignment to alleviate extensive cut and fill and to prevent downhill seepage across the rig. The blooie pit is to be reshaped according to the design suggested by the dirt contractor and will be mostly on the pad. It will be a minimum of 100 ft. from the wellsite.

(c) Cattleguards are upgraded or placed where needed as specified by the Forest Service or private owners and must be of a heavy duty nature sufficient to meet the needs of the drilling rigs.

(d) A trash cage is to be used instead of a trash pit and all refuse should be suitably removed at the completion of the drilling.

(f) The reserve pits are fenced according to Fish and Wildlife Service and USFS specifications.

Adverse Environmental Effects Which Cannot Be Avoided:

Surface disturbance and removal of vegetation from approximately 2.3 acres of land surface for the lifetime of the project which would result in increased and accelerated erosional potential. Grazing would be eliminated in the disturbed areas and there would be a minor and temporary disturbance of wildlife and livestock. Minor induced air pollution due

to exhaust emissions from rig engines of support traffic engines would occur. Minor increase in dust pollution would occur due to vehicular traffic associated with the operation. If the well is a gas producer, additional surface disturbance would be required to install production pipelines. The potential for fires, gas leaks, and spills of oil and water would exist. During the construction and drilling phases of the project, noise levels would increase. Potential for sub-surface damage to fresh water aquifers and other geologic formations exists. Minor distractions from aesthetics during the lifetime of the project would exist. If the well is a producer, an irreplaceable and irretrievable committment of resources would be made. Erosion from the site would eventually be carried as sediment in the Duchesne River. The potential for pollution to Antelope Creek would exist through leaks and spills.

Determination:

This requested action ~~does~~/does not constitute a major Federal action significantly affecting the environment in the sense of NEPA, Section 102(2)(C).

6/19/79
Date

District Engineer
U.S. Geological Survey
Conservation Division
Oil and Gas Operations
Salt Lake City District

: DISTRICT ENGINEER, O&G, SALT LAKE CITY, UTAH

BJECT: APD. MINERAL EVALUATION REPORT LEASE NO. U-8943

ERATOR: Burton Hawks, Inc. WELL NO. No. 31-1 Alkali Canyon Federal

CATION: ¼ SW ¼ NE ¼ sec. 31, T. 6S, R. 4W, USM.

Duchesne County, Utah

Stratigraphy: Gr. 7540
Surface - Tertiary Uinta Fm.

Fresh Water: The Uinta and Green River Fm's. may contain fresh water. Based on a WRD report from sec 35 T6S R6W (USM), fresh / usable water may be encountered as deep as 3300' in the Green River Fm.

Leasable Minerals: In oil shale withdrawl 5327
Oil shale should be found at depths less than 3500'
Mahogany Bed at ~1900' ±.

Additional Logs Needed: Detailed log of cuttings through oil shale zones. Geophysical logs should be run from TD to surface in order to log all oil shale and gas producing intervals

Potential Geologic Hazards: Brinkerhoff #1 Tabby Canyon Unit, sec 15 T6S R6W(USM lost circulation at: 2202, 2050, 3062, 3266, 5401, 6129, 6680. The same well (Gr. 8880) had severe hole deviation problems below 375'. Also, slight geopr. may be expected.

References and Remarks: 1 mile SE of unnamed and undefined, KGS. In Antelope Canyon Unit.
Gulf #1 sec 12 6S 7W (USM) reported 1700-1800, water flow
3300-3400' tar sand
3955-4005' sand porosity

.S.G.S. files.
il & Gas Journal 1-16-78

Signature: J Paul Matheny. Date: 6 - 8 - 79

DIVISION OF OIL, GAS AND MINING

PLUGGING PROGRAM

NAME OF COMPANY: *Burton Hawks Incorporated (Bob Wellborn)*

WELL NAME: *Alkali Canyon Federal 31-1*

SECTION *13 SW NE* TOWNSHIP *6S* RANGE *7W* COUNTY *Duchesne*

VERBAL APPROVAL GIVEN TO PLUG THE ABOVE REFERRED TO WELL IN THE FOLLOWING MANNER:

TOTAL DEPTH: *4350'*

CASING PROGRAM:

9 5/8" @ 626' cemented to surface

8 3/4" open hole with air to 4350'

FORMATION TOPS:

All in Green River
Small amount of water at 790'
Minor show of gas at 4220"

PLUGS SET AS FOLLOWS:

#1 2700'-2500'
#2 675'- 525'
#3 20'-surface

(45 sacks 118' with no fill-up factor
35 sacks 92'-- volumes much too small
to cover zones ~~are~~ designated)

9.1 viscose mud between plugs

Program by USGS--Mr. Wellborn wasn't aware that state had to be notified and allowed to review program prior to plugging.

DATE *July 9, 1979 11:00 a.m.* SIGNED *M. T. Minder*

Fed/USGS

Place in well file

United States Department of the Interior

GEOLOGICAL SURVEY

RECEIVED
JUL 19 1979
DIVISION OF OIL, GAS, & MINING

Conservation Division
8440 Federal Building
Salt Lake City, Utah 84138

July 17, 1979

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Mr. Bill Hawks
Burton Hawks, Inc.
P.O. Box 359
Casper, Wyoming 82602

Re: Antelope Canyon Unit
Alkali Federal #31-1
SW/4 NE/4
Sec. 31, T6S. R4W
Lease No. U-8943-A
Duchesne County, Utah

Dear Mr. Hawks:

Attached is a copy of a memorandum from the District Forest Ranger, Duchesne Ranger District, Ashley National Forest, Duchesne, Utah citing ten general surface restoration requirements for the referenced well. This office suggests that you contact the Forest Ranger, discuss each of the requirements and the date for accomplishment or completion, arrive at a full understanding of the restoration requirements and proceed to accomplish the rehabilitation program.

Oral approval to plug and abandon this well was given on July 5, 1979. The approval of July 5, 1979 specified a 200' plug 2700' - 2500' and a 150' cement plug 650 - 500 with an alternate 675' - 525'. We are also in receipt of the plugging program for Oil, Gas and Mining Commission, Utah, wherein a statement alludes to the fact that 45 sacks of cement were utilized for the plug set 2700' to 2500' and 35 sacks of cement were utilized for the plug 675' - 575'. According to the report, Oil, Gas and Mining states that 45 sacks provide a 118' plug and 35 sacks would be a 92' plug. Neither of these cement plugs would accomplish the approved plugging program. The hole size was reported as 8 3/4 inches.

Please provide this office with detailed information as to how this plugging program was arrived at to accomplish the required plugs.

Sincerely,

(ORIG. SGD.) E. W. GUYNN
E. W. Guynn
District Engineer

Enclosure

EWG/cl

cc: Forest Service, Duchesne, Utah
Mike Minder, Utah State O & G

#31-1 Alkali Canyon-Federal
SWNE Sec. 31-6S-4W
Duchesne County, Utah
Rig #1

6-27-79 Moving in.

6-29-79 Drilling surface hole at 100' with mud. Spudded at 8:45 p.m., 6-28-79.

6-30-79 Depth today 136'. Present operation: Mudding up, hit gravel and water.

7-1-79 Depth today 265', made 129' in 15 hrs drilling. Present operation: Drilling.

7-2-79 Depth 615', made 350' in 8¼ hrs drilling. Ran 15 jts 615' 9-5/8", 36# csg. Cemented w/330 sx Class G ¼# cella flake 2% CaCl. Plugged down at 11:30 a.m.

7-3-79 Depth 1,807', made 1192' in 15 hrs drilling. Present operation: Drilling. Dusted to 790'. Started mist drilling at this depth.

7-4-79 Depth 3,270', made 1463' in 24 hrs drilling. Air misting 10 bbls/hr. Present operation: Drilling.

7-5-79 Depth 4,090', made 820' in 24 hrs drilling. Air misting 10 bbls/hr. Present operation: Drilling.

7-6-79 4,351' T.D. Ran DIL-GR, SP to 3904'. (Could not get to bottom) Plugged well with the following plugs:

75 sx from 2500-2700'
55 sx from 675'-525' (across base of surface casing)
10 sx at surface with marker

Present operation: Moving.

FILE IN QUADRUPLICATE
FORM OGC-8-X

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING
1588 West North Temple
Salt Lake City, Utah 84116

REPORT OF WATER ENCOUNTERED DURING DRILLING

Well Name & Number: Burton/Hawks, Inc. #31-1 Alkali Canyon-Fed.

Operator: Burton/Hawks, Inc. Address: Box 359, Casper, Wyo. 82602

Contractor: Burton/Hawks Drilling Co. Address: " " "

Location SW 1/4 NE 1/4; Sec. 31 T. 6 N/S, R. 4 E/W; Duchesne County

Water Sands:

	Depth: From-	To-	Volume: Flow Rate or Head	Quality: Fresh or Salty
1.	Surface	?	Too Much Water to Air Drill (Behind Surface Casing)	Fresh
2.	790	?	Small Amount of water Caused us to change over to Soap-Mist Drilling	Fresh?
3.				
4.				
5.				

(Continue on Reverse Side if Necessary)

Formation Tops:
Green River Formation - Surface to T.D.

Remarks:

NOTE: (a) Upon diminishing supply of forms, please inform this office.
(b) Report on this form as provided for in Rule C-20, General Rules and Regulations and Rules of Practice and Procedure.
(c) If a water analysis has been made of the above reported zone, please forward a copy along with this form.

Form 9-331
(May 1963)

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SUBMIT IN TRIPLICATE* (Other instructions on reverse side)

Form approved.
Budget Bureau No. 42-R1424.

SUNDRY NOTICES AND REPORTS ON WELLS

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir. Use "APPLICATION FOR PERMIT—" for such proposals.)

5. LEASE DESIGNATION AND SERIAL NO.: U-8943-A

6. IF INDIAN, ALLOTTEE OR TRIBE NAME: ---

1. OIL WELL ☐ GAS WELL ☒ OTHER Dry Hole

7. UNIT AGREEMENT NAME: Antelope Canyon Unit

2. NAME OF OPERATOR: Burton/Hawks, Inc

8. FARM OR LEASE NAME: ---

3. ADDRESS OF OPERATOR: P.O. Box 359, Casper, Wyoming 82602

9. WELL NO.: #31-1 Alkali Canyon Unit

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.) At surface: SW¼NE¼ (2358' FEL/2062'FNL)

10. FIELD AND POOL, OR WILDCAT: Wildcat

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: Sec.31,T6S,R4W, U.M.

14. PERMIT NO.:

15. ELEVATIONS (Show whether DF, RT, GR, etc.): 7540' GR/7551' KB

12. COUNTY OR PARISH: Duchesne

13. STATE: Utah

16. **Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data**

NOTICE OF INTENTION TO:				SUBSEQUENT REPORT OF:			
TEST WATER SHUT-OFF	☐	PULL OR ALTER CASING	☐	WATER SHUT-OFF	☐	REPAIRING WELL	☐
FRACTURE TREAT	☐	MULTIPLE COMPLETE	☐	FRACTURE TREATMENT	☐	ALTERING CASING	☐
SHOOT OR ACIDIZE	☐	ABANDON*	☐	SHOOTING OR ACIDIZING	☐	ABANDONMENT*	☒
REPAIR WELL	☐	CHANGE PLANS	☐	(Other)			
(Other)				(NOTE: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)			

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.) *

6-29-79 Spudded well at 8:45 p.m.

7-1-79 Ran 15 joints, 626' KB, 9-5/8", 36# casing and cemented with 330 sx with cement to surface.

7-5-79 Drilled 8-3/4" hole to 4351' T.D. with air. Started soap-mist drilling at 790' where hole started making a little water. Had no oil or gas except for small gas flare, TSTM, starting at 4221'. The hole started having some probelms near T.D., so permission was obtained from U.S.G.S. to plug well at this depth, although unit proposal called for a 4950' depth.

7-6-79 Ran DIL-GR, SP log to 3904' (could not get to bottom). Plugged well with the following plugs:

75 sx from 2500' to 2700'
55 sx from 675' to 525' (across base of surface casing)
10 sx at surface with marker

ATTACHMENTS: Already sent with notice of intent to abandon.

18. I hereby certify that the foregoing is true and correct

SIGNED Robert E. Welborn Robert E. Welborn TITLE Exploration Manager DATE August 29, 1979

(This space for Federal or State office use)

APPROVED BY _____ TITLE _____ DATE _____
CONDITIONS OF APPROVAL, IF ANY:

*See Instructions on Reverse Side

Form 9-330
(Rev. 5-63)

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SUBMIT IN DUPLICATE* (See other instructions on reverse side)

Form approved.
Budget Bureau No. 42-R355.5.

WELL COMPLETION OR RECOMPLETION REPORT AND LOG*

1a. TYPE OF WELL: OIL WELL ☐ GAS WELL ☐ DRY ☒ Other

b. TYPE OF COMPLETION: NEW WELL ☐ WORK OVER ☐ DEEP-EN ☐ PLUG BACK ☐ DIFF. RESVR. ☐ Other

2. NAME OF OPERATOR: Burton/Hawks, Inc.

3. ADDRESS OF OPERATOR: P.O. Box 359, Casper, Wyoming 82602

4. LOCATION OF WELL (*Report location clearly and in accordance with any State requirements*)*
At surface: SW¼NE¼ (2358' FEL/2062'FNL)
At top prod. interval reported below
At total depth

5. LEASE DESIGNATION AND SERIAL NO.: U-8943-A

6. IF INDIAN, ALLOTTEE OR TRIBE NAME: ---

7. UNIT AGREEMENT NAME: Antelope Canyon Unit

8. FARM OR LEASE NAME: ---

9. WELL NO.: #31-1 Alkali Canyon Unit

10. FIELD AND POOL, OR WILDCAT: Wildcat

11. SEC., T., R., M., OR BLOCK AND SURVEY OR AREA: Sec.31, T6S, R4W, U.M.

14. PERMIT NO. / DATE ISSUED

12. COUNTY OR PARISH: Duchesne

13. STATE: Utah

15. DATE SPUDDED	16. DATE T.D. REACHED	17. DATE COMPL. (*Ready to prod.*)	18. ELEVATIONS (DF, RKB, RT, GR, ETC.)*	19. ELEV. CASINGHEAD
6-29-79	7-5-79		7540'GR/7551'KB	------

20. TOTAL DEPTH, MD & TVD	21. PLUG, BACK T.D., MD & TVD	22. IF MULTIPLE COMPL., HOW MANY*	23. INTERVALS DRILLED BY	ROTARY TOOLS	CABLE TOOLS
4,351	N/A	------	→	XX	

24. PRODUCING INTERVAL(S), OF THIS COMPLETION—TOP, BOTTOM, NAME (MD AND TVD)*: N/A

25. WAS DIRECTIONAL SURVEY MADE: NO

26. TYPE ELECTRIC AND OTHER LOGS RUN: DIL - GR - SP

27. WAS WELL CORED: NO

28. CASING RECORD (*Report all strings set in well*)

CASING SIZE	WEIGHT, LB./FT.	DEPTH SET (MD)	HOLE SIZE	CEMENTING RECORD	AMOUNT PULLED
9 5/8"	36#	626'	12¼"	330sxClass G2% Ca Cl	---

29. LINER RECORD

SIZE	TOP (MD)	BOTTOM (MD)	SACKS CEMENT*	SCREEN (MD)

30. TUBING RECORD

SIZE	DEPTH SET (MD)	PACKER SET (MD)

31. PERFORATION RECORD (*Interval, size and number*)

32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.

DEPTH INTERVAL (MD)	AMOUNT AND KIND OF MATERIAL USED

33.* PRODUCTION

DATE FIRST PRODUCTION	PRODUCTION METHOD (*Flowing, gas lift, pumping—size and type of pump*)	WELL STATUS (*Producing or shut-in*)

DATE OF TEST	HOURS TESTED	CHOKE SIZE	PROD'N. FOR TEST PERIOD →	OIL—BBL.	GAS—MCF.	WATER—BBL.	GAS-OIL RATIO

FLOW. TUBING PRESS.	CASING PRESSURE	CALCULATED 24-HOUR RATE →	OIL—BBL.	GAS—MCF.	WATER—BBL.	OIL GRAVITY-API (CORR.)

34. DISPOSITION OF GAS (*Sold, used for fuel, vented, etc.*)

TEST WITNESSED BY

35. LIST OF ATTACHMENTS: DIL - GR; SP, DRILL TIME LOG, DAILY REPORTS:ALREADY SENT

36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records

SIGNED Robert E. Welborn (Robert E. Welborn) TITLE Exploration Manager DATE August 29, 1979

*(See Instructions and Spaces for Additional Data on Reverse Side)

RECEIVED
SEP 4 1979
DIVISION OF OIL, GAS & MINING

INSTRUCTIONS

General: This form is designed for submitting a complete and correct well completion report and log on all types of lands and leases to either a Federal agency or a State agency, or both, pursuant to applicable Federal and/or State laws and regulations. Any necessary special instructions concerning the use of this form and the number of copies to be submitted, particularly with regard to local, area, or regional procedures and practices, either are shown below or will be issued by, or may be obtained from, the local Federal and/or State office. See instructions on items 22 and 24, and 33, below regarding separate reports for separate completions.
If not filed prior to the time this summary record is submitted, copies of all currently available logs (drillers, geologists, sample and core analysis, all types electric, etc.), formation and pressure tests, and directional surveys, should be attached hereto, to the extent required by applicable Federal and/or State laws and regulations. All attachments should be listed on this form, see item 35.
Item 4: If there are no applicable State requirements, locations on Federal or Indian land should be described in accordance with Federal requirements. Consult local State or Federal office for specific instructions.
Item 18: Indicate which elevation is used as reference (where not otherwise shown) for depth measurements given in other spaces on this form and in any attachments.
Items 22 and 24: If this well is completed for separate production from more than one interval zone (multiple completion), so state in item 22, and in item 24 show the producing interval, or intervals, top(s), bottom(s) and name(s) (if any) for only the interval reported in item 33. Submit a separate report (page) on this form, adequately identified, for each additional interval to be separately produced, showing the additional data pertinent to such interval.
Item 29: *"Sacks Cement":* Attached supplemental records for this well should show the details of any multiple stage cementing and the location of the cementing tool.
Item 33: Submit a separate completion report on this form for each interval to be separately produced. (See instruction for items 22 and 24 above.)

37. SUMMARY OF POROUS ZONES:
SHOW ALL IMPORTANT ZONES OF POROSITY AND CONTENTS THEREOF; CORED INTERVALS; AND ALL DRILL-STEM TESTS, INCLUDING DEPTH INTERVAL TESTED, CUSHION USED, TIME TOOL OPEN, FLOWING AND SHUT-IN PRESSURES, AND RECOVERIES

FORMATION	TOP	BOTTOM	DESCRIPTION, CONTENTS, ETC.
Green River	790'	?	Hit a small amount of water while air drilling.

38. GEOLOGIC MARKERS

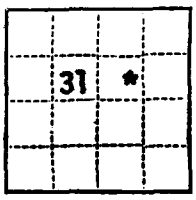
NAME	TOP	
	MEAS. DEPTH	TRUE VERT. DEPTH
Green River fm	Surface	to T.D.

U.S. GOVERNMENT PRINTING OFFICE: 1969—O-883636
837-497
871-233

43-013-30494

Form 9-593
(April 1952)

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
CONSERVATION DIVISION



RECEIVED
SEP 17 1992
DIVISION OF
OIL GAS & MINING

Sec. 31
T. 6S
R. 4W
SLB & Mer.

INDIVIDUAL WELL RECORD

PUBLIC LAND: Date June 22, 1979

Ref. No. 13

Land office Utah
State Utah
Serial No. 8943-A
County Duchesne
Lessee Burton/ Hawks, et. al.
Field Wildcat (Antelope Canyon Unit)
Operator Burton/Hawks
District Salt Lake City
Well No. 31-1
Subdivision SW NE
Location 2358' FEL & 2062' FNL

Drilling approved June 22, 1979
Well elevation 7540 Gr. 7551 KB feet
Drilling commenced June 29, 1979
Total depth 4351 feet
Drilling ceased July 5, 1979
Initial production Dry
Oral to abandon
Completed for production July 5, 1979
Gravity A. P. I.
SRA
Abandonment approved 9/8, 1992
Initial R. P.

Geologic Formations		Productive Horizons		
Surface	*Lowest tested*	*Name*	*Depths*	*Contents*
Green River	Green River			

WELL STATUS

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1979						spud	TD 4351' Abd.					

Remarks Geologic markers: see well file

casing record: 9 5/8" cc @ 626' w/330 sxs.

☆U.S. Government Printing Office: 1979 —680-201/613